**HOME-THEATER SETUP 101** 

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# FirstGlimpse

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**On Our Cover:** Featured on this month's cover is Sanus' VisionMount LT25 (\$219.99; www.sanus.com), Canon's PowerShot SD780 IS (\$279.99; www.usa.canon.com), Kodak's ESP 7 All-in-One Printer & Inexpensive Ink Cartridges (\$199.99 and \$9.99 for black ink or \$14.99 for color ink; www.kodak.com), and Able Planet's NC600 Clear Harmony Noise Canceling Headphones (\$159.99; www.ableplanet.com).

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# Editor's Note

When you're ready to improve your home-entertainment setup, you want to pick the right components, connect the best cables, and receive unsurpassed audio and video; otherwise you won't get the most out of your new CE investment. The world of home theater is large, and today you're faced with more than the task of buying a tube television set, a VCR, and a few VHS tapes. Instead, there are many cutting-edge technologies to pick from—from LCD to OLED TVs, Blu-ray Disc players to media streaming, and wire concealment to TV wall mounts. Today your options are more flexible and virtually endless compared to the options of yesteryear.

To help you get started in your search for a future-ready entertainment setup, this month's Home-Theater Setup 101 section will tell you what you need to know to construct a home-theater room ideal for you. There's plenty to know about selecting an HDTV screen technology, buying or leasing a DVR, determining what size TV and viewing distance is ideal for your environment, plus more, and we'll get you

pointed in the right direction with shopping tips and technology overviews. And, if you just so happen to be starting the home-theater process at square one, I recommend you check out our HT financial plan article on page 8. It shows you how to create a firm budget that will include all the HT components and services you need in order to conjure up your ultimate home-theater experience.



Ashley Kumpula
Editor, First Glimpse
ashley-kumpula@firstglimpsemag.com

# FirstGlimpse

# The Latest Arrivals

# Look For These New Products

eep an eye out for these products hitting Best Buy shelves for the first time. Some of the items listed below are showcased in this month's one-page product profiles, so be sure to take a look at the listed page numbers for more information.

# **Digital Imaging**

Fujifilm FinePix Z33WP See page 44

JVC Everio G GZ-MG630

JVC Everio G GZ-MG670

JVC Everio G GZ-MG680

Olympus Stylus 550WP

See page 45

Olympus Stylus 9000

See page 46

# Computers

Visiontek HD 4350 graphics card

## **Movie & TV Releases**

"7th Heaven: Season 08" DVD

"Air Bud" Special Edition DVD

"Australia" DVD & BD

"Beverly Hills Chihuahua" DVD & BD

"Bunnytown: Hello Bunnies" DVD

"Cadillac Records" DVD

"Caroline In The City: Second Season"

"ER: Complete Tenth Season" DVD

"Happy-Go-Lucky" DVD

"Howard the Duck" DVD

"I Loved You So Long" DVD

"Mighty Machines: Making Tracks" DVD

"Milk" DVD & BD

"Moment In History: Inauguration Of Barack Obama" DVD

"Nash Bridges: Second Season" DVD

"Pinocchio Anniversary" DVD & BD

"Quantum of Solace" DVD & BD

"Bolt" DVD

"Ramsay's Kitchen Nightmares: Complete Series One" DVD

"Rachel Getting Married" BD

"Rick & Steve: Complete Second Season" DVD

"Stargate: The Ark of Truth & Continuum" DVD

"The Boy in the Striped Pajamas" DVD

"The Hills: Complete Fourth Season" DVD

"The Return of the Man from U.N.C.L.E." DVD

"Transporter 3" DVD & BD

"Twilight" DVD & BD

"Watchmen: Complete Motion Comics" DVD & BD

"Wildfire: Season 3" DVD

"Wonder Woman" DVD

#### **Music Releases**

"All I Ever Wanted" Kelly Clarkson

"Approaching Normal" Blue October

"Back To Tennessee" Billy Ray Cyrus

"Big B" Big B

"Bird Money" Gucci Mane

"Boss Of All Bosses" Slim Thug

"Crack The Skye" Mastodon

"Defying Gravity" Keith Urban

"Don't Feed Da Animals" Gorilla Zoe

"Gabriel" Believer

"Get Wild" Sharam

"Heartbeat City" The Cars

"It's That Girl Again" Basia

"Just One Mo Hit" Krayzie Bone

"Lessons To Be Learned" Gabriella Climi

"Live In Boston" Chris Botti

"Love Vs. Money" The Dream

"Metamorphosis" Papa Roach

"Modern Art" The Rippingtons

"Not Without a Fight" New Found Glory

"Poseidon and The Bitter Bug" Indigo Girls

"Quiet Nights" Diana Krall

"Quiet Please: The New Best of Nick Lowe" Nick Lowe

"Routes Of Overcoming The Struggle" Flo Rida

"Scream" Chris Cornell

"Shine" Martina McBride

"Sketches Of Spain" Miles Davis

"Son Of A Preacher Man" John Ric

"The Essential Norman Hutchins" Norman Hutchins

"The Hazards of Love" The Decemberists

"The Lonely Ones" Aceyalone

"The Rebirth of Venus" Ben Lee

"The Script" The Script

"The Soundstage Sessions" Stevie Nicks



# ce news

COMPILED BY JENNIE SCHLUETER

# **IBM Takes Aim At Buyer's Remorse**

Technology has certainly made it easier to spend money, but IBM is working on technology that will not only help consumers spend money but also feel good about it later. At the NRF (National Retail Federation) Annual Convention EXPO 2009 in mid-January, IBM demonstrated several new technologies that help shoppers make more informed buying decisions and thus reduce buyer's remorse. One such innovation lets consumers use a "3D viewer" to move furniture around a test floor to get a sense of layout in their own homes. Shoppers can then share ideas such as colors, textures, measurements, and prices with others in 3D via their cell phones. IBM, along with partner EZFace, has also created the Virtual Mirror Kiosk, which lets consumers "try on" cosmetics at a beauty counter without using an actual makeup applicator. Need a second opinion on a new shade of lipstick? Just email the results to a friend.

# Best Buy On Top In Electronics

According to the December 2008
Retail Ratings Report from BIGresearch, Best Buy is still the go-to
store for consumers when it
comes to buying electronics. The
retailer was shopped most often
by almost one in three consumers
for electronics, garnering an
overall share of 29.8%. That figure
is up from a share of 26.6% in
December 2007.

# Ford SYNCs Up With The Geek Squad

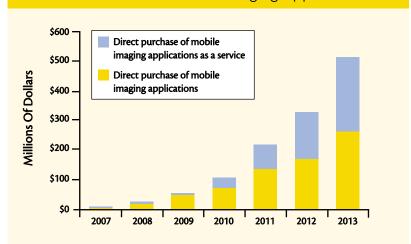


Geek Squad is partnering with Ford to provide technical support for the company's new car radio initiative. Geek Squad Agents will help acquaint and equip consumers with Ford's new SYNC platform. SYNC allows connectivity between the vehicle, a handheld device, and the Internet so that drivers can access traffic alerts. directions, and information while behind the wheel. Ford is offering this real-time service on all 2010 SYNC-equipped Ford, Lincoln, and Mercury vehicles for no monthly subscription fees for three years. SYNC will be made available worldwide beginning in 2010. Geek Squad Agents will help customers determine compatibility of their Bluetooth devices with the SYNC radio platform and get them up and running as quickly and seamlessly as possible.

# Image Apps To Mobilize Even More In 2013

Not long ago, cell phones and digital cameras were always two separate devices, but these days, it's hard to find a device that doesn't do double duty. A recent report from Parks Associates titled "Mobile Imaging: Platforms, Solutions, and Services" indicates that this trend will continue and, in fact, grow in the coming years. In 2013, the firm predicts that U.S. consumers will spend \$500 million on cell phone imaging applications.

# Forecast Of U.S. Direct Mobile Imaging Application Sales



# Set-Top Box Shipments Soar

Global shipments of set-top boxes are faring better than many electronic devices in the current economy. In fact, set-top box shipments are on course to almost double from 2007 to 2012, according to iSuppli. Global shipments in 2008 grew to 142.8 million units, a 20.9% increase from the year before. One of the biggest reasons for the sharp increase in set-top box



shipments during the next few years is the digital television conversion. Consumers are adding converter boxes, cable boxes, or satellite boxes to their home theaters in order to continue to receive television broadcasting.

Worldwide Set-Top Box Shipment Forecast (In Millions)						
2007   2008   2009   2010   2011   2012						
Worldwide STB (Set-To						
118.1	142.8	170.5	194.0	209.2	215.5	
Annual Growth Rate						
27.8%	20.9%	19.4%	13.8%	7.8%	3%	

# tidbits

By 2013, about 70% of Cell phones in the United States will include a camera with at least a 2-megapixel capability.



Source: Parks Associates



A recent survey conducted in the UK revealed that 9,000 USB memory sticks

were left in pockets at the dry cleaners in 2008.

Source: Credant Technologies

In 2009, the LCD TV market will use \$163 million worth of LEDs, up from \$51 million last year.



Source: iSuppli



The "Digital Imaging: A Focus On Sharing" study taken in October and November 2008 re-

vealed that, on average, consumers took 72 photos at the last event they attended and then shared 51% of those photos.

Source: CEA (Consumer Electronics Association)

According to a recent In-Stat report, more than 39 million households in the



United States have an HDTV, but only 22 million are considered HDTV households. This means that 17 million U.S. households with an installed HDTV are not watching high-definition programming.

Source: In-Stat



Revenue in the United States from online photo-finishing

sites will top \$1.5 billion by 2012, with nearly 70% of that total attributed to custom photo gifts and merchandise.

 ${\it Source: InfoTrends}$ 

# Financial Advice For The HT Shopper

# **Home-Theater Budget Planning Basics**

f you're like most, your idea of purchasing a home theater usually starts by buying a single component. Maybe you found a deal too good to pass up, a big-screen TV that had you at hello, or an audio system that puts your dust-caked Hi-Fi to shame. Whatever the case, there's a better way to go about getting the ultimate home theater: start with a budget.

#### The Rule

We recommend the 60/30/10 budget rule, whereby you set aside 60% of your budget for the TV and setup services; 30% for the audio system and disc player; and the remaining 10% for cables and wiring.

# A Tailored Budget Plan

Sticking to the 60/30/10 formula is easy. Most of us fall into one of two categories: the component-driven or the budget-driven shopper.

Component-driven shoppers tend to find the perfect TV or sound system first and design a budget around it. When these shoppers find themselves dissatisfied with their home theater, it's not because of their primary component but because that device is connected to sub-par components. To follow the 60/30/10 rule for a component-driven shopper, first determine your starting component, such as a 50-inch flat-panel plasma for \$1,700. Next, allocate half of that to your audio subsystem and disc player. That's \$850, which will pair your TV with a sound system and

# Let The Professionals Help

on't know your 1080p from your 120Hz? Let Geek Squad (www.geeksquad .com) give you the professional service you are looking for. Before you buy, you can schedule Geek Squad's In-Home Consultation service (\$99.99), which entails an in-home system design and layout consultation. During the visit, a Geek Squad Agent will perform a walk-through of your home with you to determine the most feasible area for your entertainment system and discuss any

potential problems that might arise during installation. Then, when you're ready to buy, you'll receive a \$100 credit toward your home-theater purchase of \$499 or more. To get your new system up and running, Geek Squad offers a Standard Home Theater Setup (\$199.99), which includes the setup and installation of A/V components, surround-sound tuning, dressed and tied wires, and a full explanation of how to enjoy your new system.

The Budget Breakdown

You expect to spend a majority of your budget on the TV, but this formula will help you purchase the quality system components necessary to get a home theater that looks and sounds stellar.

disc player capable of keeping up. Finally, plan to spend the equivalent of a third of your audio budget on high-quality cables and speaker wire. In this scenario, that's \$283. This formula would give you a final budget of \$2,833.

For budget-driven shoppers, determine the maximum amount you're willing to spend and just do the math. For instance, if you have \$2,000 to spend on your home theater, set aside \$1,200 for the TV and setup services, \$600 for the audio subsystem and disc player, and \$200 for cables and wiring. One common pitfall for budget-driven shoppers is unexpected

expenses that throw everything off. The 60/30/10 rule will help you avoid sacrificing quality where it counts.

## **Final Considerations**

Use the 60/30/10 rule as a guideline and adjust it where necessary to compensate for special considerations, such as a Bluray Disc player and service costs, depending on your needs. Turn to our "Home-Theater Shopping Questionnaire" on the next page for a worksheet to help you figure out your overall HT budget.

BY ANDREW LEIBMAN

# Home-Theater Shopping Questionnaire

# Find The Right Budget & HDTV To Fit Your Needs

To figure out where you should start your HDTV hunt, fill out the two questionnaire sections on this page. For more details about specific HD-TV models and the features they offer, we suggest you speak with a CE retail associate.

# -How Much Are You Willing To Spend? ---

### What is your overall home-theater budget?

\$\_\_\_\_\_ (ex. \$4,166)

Break your previous answer into the percentages below. This 10%/30%/60% cost formula will show you how much you should budget for each piece of a home-theater setup.

10% High-quality cables and speaker wires = \$\_\_\_\_\_(ex. \$416)

30% Audio system and disc player = \$\_\_\_\_\_(ex. \$1,250)

60% HDTV and setup costs = \$\_\_\_\_ (ex. \$2,500)

# -What Is Your HDTV Type?-

#### Which HDTV best fits your situation?

- a. A thin-profile TV that I can mount on my wall. The screen size doesn't matter, and I want plenty of options to choose from. The TV's viewing angle won't be an issue, and it needs to be able to function in a room where I have little control over natural light.
- b. A wall-mountable TV that is as little as 3 inches thick and 50 inches or larger. It should have a wide viewing angle for when my friends and family get together to watch the big game. I also want the TV to offer realistic color and a high contrast ratio, without it suffering from motion blur.
- c. I want an HDTV that isn't going to cost me an arm and a leg. It should have a large screen (50 inches or larger). It can take up plenty of space in my home, and I don't want to bother with installing a wall mount.

# How much power do you want your TV to use?

- a. An HDTV that has average to good power consumption.
- b. The TV's power consumption isn't an issue.

# How much maintenance/money are you willing to put into your new **HDTV** investment?

- a. I don't want to replace or purchase anything after my home theater is set up.
- **b.** Replacing parts that may cost \$200 or more in a few years doesn't bother me.

## How quickly do you expect your HDTV to be ready for your viewing pleasure?

- a. It should be ready as soon as I press the Power button.
- b. I can wait 20 seconds or so for the TV to warm up.

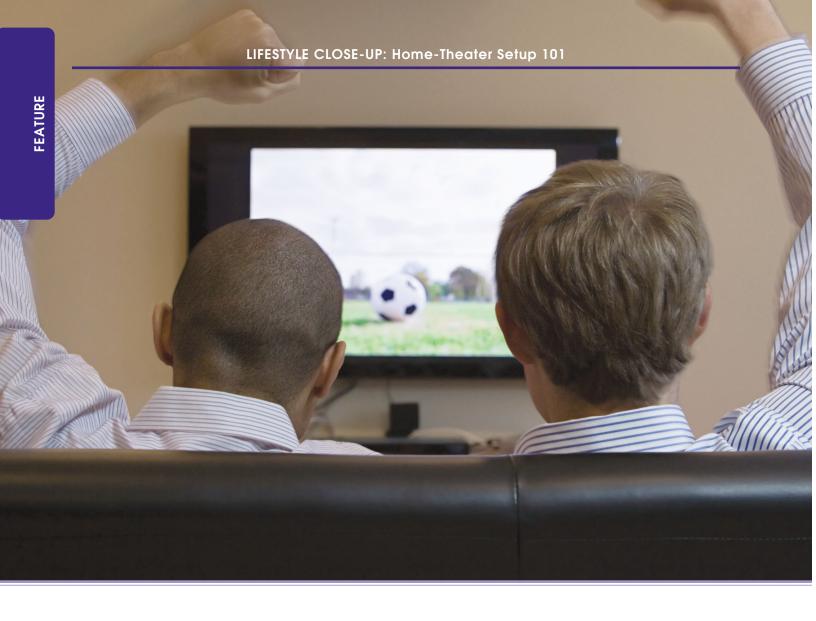
## Answers For Part B

Total up the results for each question that you answered and find your HDTV type below. Questions that you answered with the letter a are 1 point, b are two points, and c are 3 points.

Less than 6 points. As far as HDTVs are concerned, an LCD is right up your alley. To produce the same picture brightness, LCDs use less power than plasmas, and they generally have a higher native resolution than what same-sized plasma TVs offer.

6 to 7 points. Look no further than a plasma TV in your HDTV search. These TVs boast the best in picture quality, as well as long life spans. Some plasma manufacturers claim their TVs can last more than 20 years with eight hours of use per day.

More than 7 points. For the budget-conscious among us, RPTVs (rear-projection TVs) are a perfect match. This type of screen may take up more space than its HDTV counterparts, but you'll be able to keep your overall home-theater budget lower. This TV is sure to be the center of attention in any room.



# The Right HDTV For Your Room

# **Room Size & Ambient Light Matter**



ome people seem to have one purpose in life, and that's to serve as a warning to others. If you've spent much time in other folks' home theaters, you might already be well-versed in what not to do when you put together your own system.

There are some basic do's and don'ts when it comes to converting a room of your house into an entertainment mecca. An HDTV is the foundation of a home theater and the center of attention, so let's take a look at the ways you should make sure that your purchase is well-suited to the type of room you have.

### Focus On The TV

The most obvious limitation for HDTV shoppers with enclosed entertainment centers is the space available for a new TV. For instance, a legacy entertainment center made for a large tube TV will be more than deep enough for any new flat-panel television. However, the limiting factor may be the width of the TV enclosure, which may have been made with a standard definition 4:3 aspect ratio in mind. Be sure to take the physical dimensions of a new HDTV into account before you buy-that is, if you intend to keep your enclosed entertainment center.

Another consideration that will affect the size of the HDTV you buy is the viewing distance, meaning how far it will be from the screen to your eyes in your favorite seat. (See the "HDTV Screen Sizes By Viewing Distance" chart for our recommendations.) If you buy a set that's much smaller than our recommended screen size for your viewing distance, you might not be able to see all the detail your HDTV can offer.

# **But Not Too Big**

On the other hand, if you've ever sat at the front of a movie theater with the huge screen looming above you, you may understand why we urge you not to give in to temptation and buy an HDTV that's too large for your room. If you spend your viewing time moving your eyes (or your head) back and forth across the screen to take everything in, you'll be exhausted rather than entertained. Keep in mind that HDTVs that look modest in a big store can look oversized in your living room. And if you sit too close to a large HDTV, especially a 720p model, you'll be able to see individual pixels, which

means the picture will look grainy instead of smooth.

Ambient light also can play a part in your decision. HDTVs don't have the convex screens of the tube TVs of yesteryear, so they don't pick up as much window glare. Still, even a small amount of light in the room can ne-gate much of the benefit of an HDTV with a higher contrast ratio than others. For example, the deepness of a plasma or an LED-based LCD's dark colors will be most apparent in a pitch-black room. Also, HDTVs with glossy screens, such as many plasmas and some LCDs, may reflect more glare than others.

#### **Case Studies**

Here are a few examples of rooms that may present special design challenges or opportunities.

A studio apartment. High, vaulted ceilings, throw rugs on wooden floors, and an open floor plan-that's the archetypal studio apartment. Depending on the amount of space available, a freestanding RPTV with a large screen might look right at home. An LCD or plasma would fit right in, too, of course. However, it might be easier to put a flat-panel HDTV on a stand or in an entertainment center than to mount it to a brick wall. You can do the latter, but you'll need the right tools and perhaps professional help.

#### A family room with a wall of windows.

In this setting, reducing glare is key. Avoid any HDTV with a glossy screen, as it will reflect the windows' light like an old tube TV. An LCD with a matte screen is a good choice for this scenario, as its reduced contrast ratio (compared to plasma and some types of RPTVs) won't make a difference in viewing quality when it's light outside. You can hang some room-darkening blinds and curtains, of course, if you don't want the amount of ambient light to dictate your choice of HDTV.

A windowless basement. Somehow, movies and TV always look best in the dark. Any type of HDTV can look great in a windowless room, especially a set with a high contrast ratio, such as a plasma and certain types of RPTVs. The screen can have a glossy or matte finish, as glare should be a nonissue. Actually, you may prefer a glossy screen in this instance, as a gloss finish may increase the HDTV's contrast ratio a little.

Alternatively, a windowless basement is a perfect place to set up a reflective screen and a ceiling-mounted front projector. Mind you, you should realize that a high-quality screen can cost about half or two-thirds of the price of a good widescreen projector.

In sum, take a good look at your hometheater environment before you shop. It will guide you to a better decision when you buy an HDTV. 📧

BY MARTY SEMS

# **HDTV Screen Sizes** By Viewing Distance

hese are some optimal screen dimensions for rooms of various sizes, although you may prefer a larger or smaller set than we recommend for a given viewing distance. Note that as of this writing, true 1080i/p (1,920 x 1,080) HDTVs are available in 32-inch and larger sizes. ●

Widescreen Sizes Recommended (diagonal, inches)
19, 20
23, 26
32, 37, 40, 42
46, 47, 50
60, 63, 65 70 or larger

# Disc Players & Recorders

# Which One Should You Bring Home?

ow that big-league features are available in affordable BD (Bluray Disc) players, it's tougher than ever to choose between buying

a DVD player and going high-def. And what about a recorder? Let's have a look at the case for each.

BD players. Liz has an ulterior motive in buying a Blu-ray Disc player: her boyfriend Paul. With BD, they'll be spending quality time at *her* house instead of in his smelly apartment.

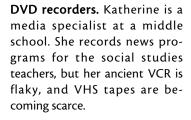
Movies—especially the action flicks Paul likes—simply look better in high definition. He's impressed that Liz bought such a future-proof player, too, because it can download movie trailers, ringtones, and other content when they watch BD Live movie discs.

Moreover, Liz's BD deck upconverts DVDs to HDTV resolutions better than Paul's old DVD player.

Now if he can just learn to love the smell of potpourri....

DVD players. Money is tight for Chas, so when his DVD player gave up the ghost, he needed a good value. He would love to go high-def someday with a BD player and a bigger HDTV, but for now, he's on a strict budget.

A DVD player is the most inexpensive option for movie disc entertainment. Models that upconvert DVDs start at \$50. Chas chose a player that can decode both Dolby Digital and DTS audio formats, so he can continue to use his old stereo as a home-theater sound system without having to buy a new receiver.



Katherine was excited to hear that a DVD recorder works pretty much like a VCR, only with cheap, recordable DVDs instead of videotapes. She bought one with a built-in VCR so she can migrate important tapes to disc. It cost more than a standard DVD player, but for Katherine, it was money well spent.



BY MARTY SEMS

# **BD Player Firmware Updates**

Should you have an issue with a BD (Blu-ray Disc) player, here's something to try before you return it to the store or take it in for repairs.

Like some other consumer electronics and computer devices, many BD players let you update their firmware, or operating instructions, when the manufacturer posts a new version online. New firmware might fix a problem, add support for more disc types, expand audio features, or improve Internet connectivity.

Some players let you access firmware updates through their Web connections. For others, you can use a computer to download an update from the manufacturer's site, burn it to CD, and insert the disc into the player.



# A DVR Dilemma

# Is It Better To Buy Or Lease?

ne important question to ask when shopping for a DVR is this: Do I buy or lease? Thanks to TiVo, satellite TV providers, cable companies, and CE manufacturers, you have a choice. Your options include everything from a low-cost add-on to your monthly

digital cable TV subscription to buying an HD (high-definition) DVD player/recorder with a hard drive.

DVRs let you record a program while watching one you've already recorded. Features vary, of course, but here are some key functions to look for in a DVR or DVR service: an on-screen EPG (electronic program guide), parental controls, sophisticated search tools, scheduling recordings via the Web, and recording an entire season's worth of shows with one command.

One of the best features of a DVR is being able to pause, rewind, and, in some cases, fast-forward programming. Think of how nice it would be to fast-forward through commercials to watch the funny antics in an episode of "The Office." If you miss the beginning of an episode being recorded, you can rewind to catch the beginning while recording the rest.

If you'd like to get comfortable using a DVR before you buy one, then leasing is probably a wise choice. You can go this route whether you have digital cable or satellite TV.

Digital cable. You may get a DVR when you upgrade your digital cable service. Though terms depend on your cable provider, this is a low-cost option in many markets. Some cable companies lease a DVR for additional monthly fees, and they usually

replace a digital TV set-top box. Check with your cable company about any additional fees, such as installation. You may be able to pick up a DVR set-top box at your local cable office and hook it up yourself, thereby saving any installation charges.

Satellite TV. Satellite companies typically offer subscribers an upgrade to a DVR for an additional monthly fee.

**TiVo.** Since its debut in 1999, TiVo (www.tivo.com) has continued to change its subscription packages and upgrade its DVRs. It offers dual-tuner DVRs that let you record two programs at once, with certain restrictions, as well as HD DVRs. You can hook up a TiVo box to a TV receiving programming via an antenna, cable, digital cable, or satellite, and TiVo DVRs usually work with a broadband connection, although you may need to hook up to a phone line during the initial setup.

## Buy Your Own DVR

Instead of leasing, you may buy a DVR to obtain extra features and eliminate monthly fees. Combo units record programs, burn DVDs, and let you watch programs from the beginning, even as you're recording them. Some have an HDMI connection, so you can record and view HD programs on your HDTV.

As you mull over your options, head to your local consumerelectronics store to get a hands-on demonstration. And ask plenty of questions about how a DVR will work with your home-entertainment system. FG

BY RACHEL DEROWITSCH

# Speaker Strategy

# **How To Select & Arrange Home-Theater Speakers**



n organized home-theater audio system creates an environment in which you experience the kind of aural enjoyment you would expect

to hear from a multispeaker setup. Purchasing the appropriate speakers is the first step; placing them in the correct position in your entertainment room is just as essential. Use this article as a guide to arranging a high-quality speaker collection.

# **Get Choosy**

In many standard home-theater rooms, you'll find what's known as a 5.1-channel

system, with the 5 delineating a principal group of speakers, and the .1 representing the subwoofer. This setup includes a center channel, left and right front, and left and right surround speakers, as well as a subwoofer.

A 6.1-channel system adds a rear center channel speaker, and a 7.1-channel system incorporates left and right back speakers for a total of seven stereo speakers plus a subwoofer. Each system features a specific layout to offer you the best audio soundstage according to the number of included speakers.

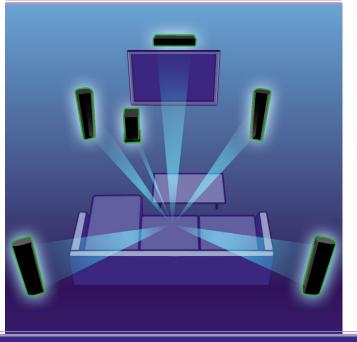
#### Make Room

Because 5.1- and 7.1-channel systems are common home-theater audio arrangements, we'll explain where to situate each speaker for these systems. For either, start by placing the center channel speaker at the forefront of your seating, either directly below or above the display screen. This speaker provides most of the dialogue while keeping soundtrack levels balanced. The subwoofer rounds out low-frequency audio; you'll place it to the left or right of your television. The direction of the subwoofer isn't as important as the other speakers, however, because low-frequency sounds aren't as directional.

To arrange the cornerstone of your soundstage, position the front left and right speakers 30 degrees on each side of the center channel speaker. These speakers carry the musical score and the majority of the special effects sound.

The surround-sound speakers, which round out your listening environment with ambient resonance, should sit to the right and left of your primary seating—in other words, 90 to 110 degrees from the center channel speaker. Adding the left and right back speakers to create a 7.1-channel system is as simple as placing each speaker behind the seating area, roughly 135 to 150 degrees from

the center channel speaker. Ideally, both the surround speakers and the left and right back speakers should be elevated above ear level.



## Atmospheric Audio

Investing in a home-theater audio system requires at least a two-step process: choosing the right speakers for your room and taking the time to position them in a way that will amplify the sounds of your media collection.

BY JOANNA SAFFORD

# I Can Put My Speakers Where?

If the architecture of your room allows for some audio additions, you might consider an in-wall, on-wall, or in-ceiling speaker installation. Whether you're installing a 5.1-, 6.1-, or

7.1-channel audio system, wall-mounted speaker placement for each channel audio system should mirror the equivalent floor configuration.

# Cables, Connections & Sources

# **Home-Theater Inputs & Outputs**

ou bought an HDTV and stacked your A/V rack. There's a digital cable/satellite receiver for the TV, a BD (Bluray Disc)/DVD player for movies, a DVR, a gaming console, a device for streaming media from your PC, and a receiver. Now all you need to do is hook up this pile of stuff. Fortunately, most home-theater sources provide a few different audio and video outputs to provide flexibility when connecting the devices to your TV or receiver.

Video & Audio

Cables that carry both video and audio can simplify your home-theater setup because you'll reduce the number of wires strung behind your TV, as well as the confusion that can occur when working with multiple sets of cables. For the best video and audio quality, you'll want to use HDMI cables, which carry digital, uncompressed highdefinition video and multichannel audio. Older Composite cables carry both audio and video, but Composite cables can only convey stereo audio and analog, standarddefinition video.

# Video Only

For home-theater components that don't offer an HDMI output, DVI (Digital Visual Interface) cables and ports are the next best video option. DVI offers an all-digital interface that provides a visual quality equal to HDMI, but you'll need to use a separate cable for your audio. Component jacks offer the next highest video quality and support HD formats; however, Component cables are analog and must convert digital video signals—leading to a degraded picture quality. Older devices may feature an S-Video

connection, but you'll only want to use S-Video if you have no other options.

# **Audio Only**

For digital audio connections, you can use either TOSLINK (or fiber optic) or digital coaxial cables. These two cable types offer the same multichannel digital audio support, but TOSLINK cables can work poorly when bent because the optical conductors need to retain their shape. Multichannel and stereo audio is available via RCA connections, and although this cable type delivers decent quality,

you'll deal with a lot of cables.

# **Cable Quality**

Discount cables may be built with insufficient shielding from electromagnetic interference, which can cause A/V pops and static. Additionally, more affordable cables may use ill-fitting connectors that detach under strain and require occasional reconnection. To avoid signal interference issues, look for high-quality cables, such as those with tripleand quad-layer shielding.

BY NATHAN LAKE



# **Projector Inputs**

Projectors offer the same types of inputs as other hometheater equipment. However, some lower-end projectors are built for business needs and typically don't produce HD resolutions. For best results, you'll want to invest in a model with HD capabilities and inputs. For instance, Optoma's HD65 (\$999.99; www.optomausa.com) can produce video up to 1,920 x 1,080, and it includes HDMI, Component, Composite, S-Video, and VGA inputs.

# Suitable For Hanging

# **Mounting Options For Your TV**

f you've been watching a wall-mounted tube lately, you may be either a security guard or a hospital patient. LCD and plasma sets, however, are perfect for hanging practically anywhere.

Here are several types of flat-panel TV mounts plus some lifestyle scenarios in which they'd come in handy.

#### Low-Profile

These mounts keep your HDTV in a fixed position, very close to the wall, much as you'd hang up a painting.

Who could use it: Viewers who watch their televisions from a single, unchanging location; households with young children where it's wise to keep the TV up out of harm's way.

#### Tilt

This type of mount sits a little farther out from your wall than the low-profile model. The added room enables you to tilt the TV

toward you, up to an angle of about 15 degrees.

Who could use it: Viewers who want to adjust the screen angle for different viewing heights—say, between sitting and reclining or the sofa and the floor.

#### **Full-Motion**

You may see this under various names—tilt-swivel, three-way, etc.—but the principle is generally the same. The TV attaches to a hinge or articulated

arm that swings away from the wall, so the set can be moved up, down, or sideways.

Who could use it: Viewers who want the maximum amount of flexibility in viewing angle or need to ensure optimal visibility from anywhere in the room.

# Ceiling

The TV is suspended from the ceiling. With most models, you can still rotate and tilt, and possibly even raise

and lower the set to different heights.

Who could use it: Viewers who lack a sufficiently sturdy wall where they want the TV.

#### **Under-Cabinet**

These are for mounting a small TV (typically less than 20 inches) beneath a cabinet or similar overhang.

Who could use it: Viewers who spend a lot of time in the kitchen or workshop and want to keep a secondary TV there.

BY BRIAN HODGE



# **Wall Mounting For Speakers**

Your TV isn't the only component you can hang on a wall. Your speakers—front, surround, and rear—may also be perfect candidates for mounting.

For an even sleeker, more theatrical look, consider concealing the wiring behind your walls. If that sounds like a job you'd rather not tackle yourself, enlist the help of your local Geek Squad (www.geeksquad.com). When purchasing a combined service package of TV & Video Setup (\$99.99) and TV Mounting (\$99.99 and up, depending on the size of the TV), you can also have them hide those unsightly wires (\$49.99 for TV wires, \$49.99 for speaker wires).

# Furniture For All

# **Deck Out Your Media Room**

he best complement to your new hometheater system is a room full of furniture specially designed to improve your home-

theater experience.

Whether you are partaking in your weekly family movie night, hosting friends for the big game, or curling up to watch TV on your own, the furniture in your media room can impact the overall pleasure you get from your home-theater system.

## The Perfect Stand

The TV stand is a staple item in most media rooms. When making your selection, be sure to keep the size and the weight of your TV in mind, as well as features that may be useful. For example, consider ventilation provisions, which help prevent overheating, and cable wire management, which can help keep wires neat and tidy. Properly managed cables can also make it easier to figure out which cable belongs to each home-theater component, in turn simplifying cleaning and adding or removing components.

# **Bold Storage**

Your TV stand not only holds your TV, but it can also provide storage for other electronics, such as your DVD player, settop boxes, and video game consoles. Some also have drawers and shelves for other things, such as DVDs/BDs (Blu-ray Discs), video games, and CDs.

If you prefer a standalone unit for storing your media collection, consider purchasing media towers. Whether you want a simple tower with lots of slots for your media collection or a cabinet that mixes well with your media room's décor, you can find storage for hundreds of CDs,

BDs, and DVDs. If you have a small media collection, you can purchase smaller storage units, as well. Also, media storage comes in a wide price range, so there's a media storage solution for every budget.

# **Put Your Feet Up & Relax**

Finally, one of the best things about watching a movie or your favorite sitcom is snuggling into your chair and relaxing. As you plan for the seating in your media room, consider purchasing high-end modular furniture with spill-resistant upholstery. You can even purchase chairs with cup holders—just like at the movie theater. Home theaters are also great for

gaming, and your local CE retailer is bound to have the perfect gaming chair for you that's specially designed to keep you comfortable during long sessions. Additionally, some gaming chairs come with built-in speakers to further immerse you in the game.

All you need now is a good set of blinds to keep the light out while you're watching the latest blockbuster, and you're ready to reap the maximum enjoyment from your home-theater system.

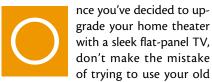
BY TESSA WARNER BRENEMAN

# Hang It Up With An HDTV Mount

If you'd prefer to get your HDTV up off the floor and out of the way, consider a TV mount instead of a stand. There are several types of wall mounts your can purchase for your HDTV, including low-profile, tilting, and full-motion. For detailed information on each type of mount and who would benefit from which style, read "Suitable For Hanging" on the next page. You can also learn about the different options currently available from Sanus with our "Choose The Right Sanus TV Mount" chart on page 27.







TV stand or hutch. A quality wall mount is the only way to showcase your new flat-panel TV, and better yet, it can ensure that the centerpiece of your home theater remains at the optimal verti cal and horizontal viewing angle for everyone watching.

#### **Behind The TV**

Sanus Systems' VisionMount LT25 (\$219.99; www.sanus.com) is a premium wall mount that gives you the freedom to make minor adjustments to the TV's tilt, angle, and position-even after installation. The VisionMount LT25 is constructed of an environmentally friendly heat-treated extruded aluminum alloy that is strong enough to support flatpanel TVs up to 175 pounds, yet light enough to be held against a wall with a single hand during installation. Sanus built the LT25 to support flat-panel TVs 30 to 60 inches in size and engineered a multitude of advanced features to help maximize your viewing experience.

### More Than Just Tilt

If you've ever felt the urge to straighten a photo or piece of framed art, then the VisionMount LT25's ProSet feature is right up your alley. This handy capability lets you height adjust the right and left sides of the TV together to slightly raise or lower the TV or independently to ensure the TV appears level and in line with the surrounding furnishings and room architecture.

The innovative ClickStand feature acts like a flat-panel TV hood prop (the rod that keeps your car hood open). When you need to view the backside of the TV for maintenance or cable installation purposes, just lift the bottom of the TV up to 3.75 inches away from the wall and engage the ClickStand. When you're done fiddling, just disengage the ClickStand.

Nitpickers and furniture movers will really enjoy Sanus' Virtual Axis technology. This unique feature lets you subtly tilt the flat-panel TV without requiring a single tool.

Don't let the placement of your wall studs dictate where the TV is mounted. The LT25's lateral shift capability lets you slide the TV to the right or left, which lets you position the TV perfectly, even after the installation is finished.

The Sanus LT25 has an open wall plate design that leaves plenty of room behind the TV for cable management and in-wall installed connections. ClickFit-compatible accessories, such as surge suppressors and routers, can also be attached to the LT25's wall plate with ease.

## A Flat-Panel Foundation

When you buy that fancy flat-panel, it just makes sense to get a wall mount that will work hard to show it off. If you're serious about aesthetics, the Sanus LT25 is the only wall mount you should consider. FG

# Antenna Tech

# Rabbit Ears Meet The Digital Age



ntennas may seem like relics from a distant past when cable and satellite companies didn't dominate, but they are still relevant in this age of

digital HDTV. On June 12, all television broadcast towers in the United States will have to start sending DTV (digital television) signals, and the only way you will be able to receive them is by using the same types of antennas we've relied on since the birth of television.

When buying an antenna to take advantage of these digital signals, make sure it supports the UHF (ultra-high frequency) band, as that is the swath of the radio spectrum where most DTV broadcasts are found. The VHF (very high frequency) components of an antenna are much bulkier than the UHF components, so check the tower frequencies in your area (see sidebar) to see if you even need VHF capabilities, especially if you want to use an indoor antenna.

## Directional vs. **Omnidirectional**

A major point of distinction between all antennas is whether they are directional or omnidirectional. Directional antennas must be pointed at TV signal towers to tune in to a particular channel, while omnidirectional models receive signals from towers in any direction. If you live close to a lot of transmission towers, omnidirectional antennas are convenient, but directional antennas are better at pulling in weak signals from longer distances and also at locking in strong signals.



# **Amplifiers**

Many indoor antennas come with signal amplifiers, and external amplifiers are also available to help boost weak signals. If signals are too weak, amplifiers won't do you any good at all because they need something to work with, but they may solve issues with

# **Tracking The Towers**

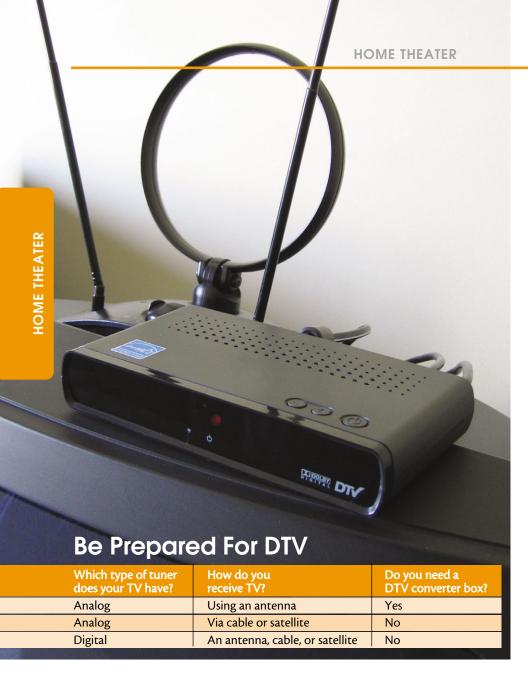
o how do you know where all the TV towers are in your area a complete list based on your locachannel numbers, network names, rectional antenna needs to tune in to each station.

signals that come in but have intermittent problems.

#### Can You Tune It?

HDTV broadcasts over the air use the same frequencies that television broadcasts always have, so any UHF or VHF/ UHF combo antenna can pull them in, but there are some antennas designed specifically to pull in the best possible HDTV signals. The only problem you may run into is if your television doesn't have an integrated tuner to handle the digital signals. Older analog televisions that can't process digital signals need a converter box to convert the digital signals into analog signals. HDTVs that don't have integrated tuners (often called HDTV monitors) will also need a tuner box between the antenna and the HDTV if you want to take advantage of high-definition broadcasts.

BY TRACY BAKER



# There's Still Time

# A Digital TV Transition Update

f you are one of the nearly 6% of Americans, according to a January survey from The Nielsen Company, that is unprepared for the switch to digital TV, you'll want to mark June 12 on your calendar. The new transition deadline means that if you use an antenna to receive TV and your television doesn't feature a built-in digital tuner, you only have a little time before you absolutely

must connect a DAC (digital-to-analog converter) to watch over-the-air TV.

#### What Is A DAC?

A DAC (or DTV converter box) converts a digital signal to an analog output that can be used by an analog TV. If your TV has a digital tuner or you subscribe to cable or satellite, you don't need a DTV converter box; your existing cable and satellite equipment already transforms the signal. Only those that receive TV via antenna on a TV with an analog tuner are affected by the transition.

# Why The Delay?

Congress wanted to give consumers more time to purchase converter boxes before mandating the change. Additionally, the Senate hopes to allocate more money into government coupons for the boxes. The bill allows households to reapply for coupons using some of the funds in the \$650 million coupon program. As of press time, 3.6 million requests for coupons were on the waiting list.

## What If I Haven't **Purchased A DAC?**

In addition to changing the deadline, the Senate adjusted the bill so that broadcasters can drop the analog signal anytime before June 12. Thus, it's a good idea to pick up a DTV converter box as soon as possible, or you may end up missing some channels from your TV lineup.

# What If I've Already Purchased A DAC?

Go ahead and connect the DTV converter box to your antenna and the TV. Nearly all broadcast stations now produce a digital over-the-air signal, so you won't miss out on any of your favorite programming. Additionally, you may find that station's digital signal offers more channels, such as 8-1, 8-2, and 8-3, that you couldn't receive via the analog overthe-air signal. A digital signal is more efficient than analog, so broadcast stations can fit more channels into the same wavelength spectrum. The digital station should also offer improved picture and sound quality. Note that stations that made the DTV transition early may use a different frequency after the transition, so it'd be wise to regularly rescan for channels on your DTV converter box. FG

BY NATHAN LAKE

# Sonos Multi-Room Music System Bundle 150

# Your Music, Your Place, Your Choice

out a movie? This might sound impractical, but the Sonos Multi-Room Music System Bundle 150 will bring you closer to this reality than you might think. You can enjoy music in every room of your house by using a Sonos CR100 Controller (or the Sonos application for your iPhone) to manage the Sonos ZonePlayers located in various areas throughout your home.

o you ever wish you had a soundtrack for your

life, as if you were living

## Spreading The Music Of Your Life

The Sonos Multi-Room Music System Bundle 150 operates on the SonosNet 2.0 wireless mesh network technology that doubles the wireless range of its components. To enjoy your music anywhere and everywhere, you'll place one of two types of wireless digital music players-the Sonos ZonePlayer 90 or 120-in any room you would like to hear music. The ZP120 connects to a preferred audio system, and the ZP90 transforms your home-theater stereo or amplified audio device into a Sonos music system; both play and amplify your music collection. Adding the Sonos ZoneBridge (\$99) activates the entire Sonos Multi-Room system via SonosNet. Connect it to an Ethernet port (with high-speed Internet) or to a wireless router. This component is well-suited for a music-free room where your router is located.



The Sonos Controller (CR100) features a full-color LCD interface and scroll wheel that show you what music is playing in each room. From here, you can control the volume and music selection in a single room, two or more zones, or every room simultaneously. You also have the option to add the free Sonos Controller application to your iPhone or iPod touch in order to access and play music on familiar portable devices. Registering your system will allow you to receive automatic software updates, as well.

# Every Room, Every Day, All The Time

Here's what you need to remember about the Sonos Multi-Room Music System: It lets you play all the music you want all over your house and control it all from the palm of your hand. With wireless ZonePlayers in the rooms of your choice and a Sonos Controller in hand, you can add music to every part of your life and every room in your house. For instance, this house-wide system is available for your entertainment in the kitchen while you're cooking a fine meal, in your bedroom as you relax before sleeping, and in your home office while you're busy at work.

Sonos gives you instant access to millions of songs and stations, including music files stored on your computer, thousands of free Internet radio stations, and the most popular online music services. Simply grab the Controller and pick a room, pick a song, and press play. EG

# Your Home Theater Go-To Guys



# **Home Theater Installation Services**

ack in the day, setting up a TV was a cinch, but these days it's a lot more complicated. Geek Squad Home Theater Installation service lets you sit back and envision your ultimate viewing

and listening environment, while leaving the design configuration and installation to the Geek Squad's expert agents.

#### In-Home Consultation

The Geek Squad offers an in-home consultation service. Schedule an appointment by calling 1-800-GEEK SQUAD (800/433-5778) or by visiting your local Best Buy.

The Geek Squad Agents spend roughly an hour helping you build your dream A/V system. They can perform a preliminary walk-through of your home, discussing different A/V possibilities with you and offering advice on choosing the right products and services. The cost of the service, which includes a detailed estimate of costs and a diagram of the proposed layout, is \$99.99. With an in-home consultation, you will receive a \$100 coupon that can be used toward a future hometheater purchase of \$499 and up.

**In-store experience.** Many Best Buy stores feature a Magnolia demo room, in which you'll see and hear what a high-performance home-theater setup should look and sound like in a comfortable living room setup. A sales associate will ascertain what it is that you want from a

# **Available Services**

eek Squad offers a range of flexible and comprehensive ideal home-theater system.

home-theater system. They'll also make sure you'll have the proper cables and accessories for the best A/V results, as well as ensure you're informed about the product. For instance, if you purchase a new HDTV, the sales associate can educate you about the local availability of digital cable, satellite, and over-the-air services.

In-home installation. TV & Video Setup costs \$99.99 and includes the plugging in, configuring, and setting up of seven select video components. If you wish to add audio integration, the Standard Home Theater Setup combines a TV & Video Setup with Speaker Setup for \$199.99. Other services, such as calibration, onwall TV mounting, and remote control programming, are available, as well.

# **One-Stop Shop**

You already know that Best Buy has plenty of the CE products you want, and

# Price Breakdown

eek Squad offers a complete list of professional

now you know that you can get it all installed and configured to your liking with the help of the Geek Squad's Home Theater Installation service. Perhaps the most important aspect of the service is that the Geek Squad Agents will teach you to become the expert of your own home theater. FG

BY ANDREW LEIBMAN

# HDTV Glossary



alderdash! OK, HDTV jargon isn't that bad, but there are a few terms every shopper should know. Here's your cheat sheet.

aspect ratio—Put simply, it's the shape of the TV's screen. An HDTV has a wider picture than a traditional TV of the same vertical screen height. An HDTV has a 16:9 aspect ratio, meaning that if its screen were 16 inches wide, it would be 9 inches tall. A regular 4:3 TV screen would be 12 inches wide at the same 9-inch height.

HDMI-High-Definition Multimedia Interface is a type of cable connection that carries both high-resolution video and uncompressed multichannel audio among HDTVs, home-theater receivers, and other components. HDMI cables maintain top picture and sound quality.

**HD tuner**—Some more expensive HDTVs include a built-in tuner for receiving local high-def broadcast TV channels. Your TV doesn't need an HD tuner if you have cable or satellite service. Separate HD tuners and antennas are available for HDTVs without them.

interlaced—When an HDTV displays an interlaced image, as in 1080i or 480i resolutions, it really shows you every other horizontal line of a frame of video (called a field) at a time. Sixty times a second, the TV displays the other field of the frame, meaning the lines not shown in the previous field. Interlaced video appears to flicker and causes moving objects on-screen to have blurred edges.

LCD (liquid-crystal display)—Like a notebook's screen, an LCD HDTV uses



a fluid crystal substance to form pixels of color in front of a backlight. LCDs may not be able to match plasma TVs' deep black and gray areas, but they're lighter, sometimes less fragile, and considered easier to set up. These work better in brighter rooms or if you will be playing unchanging images on the screen for an extended period of time.

plasma—Plasma TVs use a tiny tube of gas for each pixel. Electricity makes each pixel glow. Plasmas create deeper blacks and sometimes brighter colors than LCDs and have better contrast. These also offer slightly better viewing angles. However, older or less expensive models can also suffer permanent screen damage if an unchanging image is displayed too long, such as a TV channel's stock ticker or parts of certain video games.

progressive scan—A TV showing a progressively scanned image, as in 1080p or 720p resolutions, displays a full frame of video (both odd-lined and evenlined fields) all at once. Progressive-scan video looks sharper and doesn't flicker like interlaced images can.

projection—Some large-screen HDTVs offer lower-priced alternatives to LCDs or plasmas by using projection technologies. These technologies vary, but all projection TVs throw light on a screen from the front or rear. This means they are a little to a lot bulkier than plasmas or LCDs, but some rear-projection sets have stellar picture quality.

viewing angle—No matter where you sit in front of an HDTV with a wide viewing angle, such as 170 degrees, its picture should look reasonably good. Test this before you buy.

widescreen—A TV or monitor that's wider horizontally in relation to its vertical height. HDTVs typically have a 16:9 aspect ratio rather than an older 4:3 display.

# THINGS TO KNOW

# **Audio Receivers**

# **Supported Audio Formats**

Which audio formats are decoded by audio receivers?

Receivers decode various sound-encoding schemes from Dolby and DTS, which are used to store sound-tracks on DVDs and BDs (Blu-ray Discs).

Does my BD/DVD player need to support a bunch of audio formats, too?

Not if your audio receiver does. If you don't have an audio receiver, however, the disc player must be able to decode the audio formats you want to hear.

How can I make my audio receiver decode audio instead of my disc player?

Set your disc player's audio output to bitstream or raw mode.

What if I want to use stereo speakers instead of surround sound?

Multichannel audio formats are usually backward-compatible, so you'll hear the soundtrack through two speakers.

### **Watts & Power**

How does a receiver's wattage rating relate to actual performance?

The wattage rating is a rough indicator of how much power the receiver can send to your speakers and fill the room with sound.

How are my speaker choices affected by the receiver's wattage rating?

You'll want to purchase speakers with power ratings that meet or exceed the receiver's power-per-channel wattage.

What per-channel wattage should I look for if I'm placing the receiver in a room that's smaller than 200 square feet?

You'll want at least 100 watts per channel to fill the room with sound.

What per-channel wattage should the receiver feature for a room that's 200 to 300 square feet?

A receiver that offers 100 to 150 watts per channel should do the job.









#### **Notable Features**



# Do some audio receivers include support for satellite radio?

Yes. If you're a current subscriber to a popular satellite radio service, you can utilize the satellite radio-ready features (such as a tuner and antenna) on some audio receivers.



# Can I dock my MP3 player and listen to songs on an audio receiver?

Some audio receivers are compatible with MP3 players as long as you use an MP3 player dock connector. Certain brands may also require an MP3 player adapter.



# Do audio receivers feature Bluetooth compatibility?

Certain audio receivers offer this feature. Connecting Bluetooth peripherals, such as noise-canceling headphones and standalone stereo systems, may require a wireless audio receiver.



# I want to plug my USB devices into an audio receiver. Is this possible?

Look for an audio receiver that supports audio playback via a USB hub to enjoy tunes from MP3 players and other compatible devices.



# Do I have to purchase a special remote for a new audio receiver?

Not necessarily. Some audio receivers come equipped with a programmable universal remote that can control multiple home-theater audio settings; others will include a standard remote to control the device.

# Speaker Channels



# What does "channel" refer to in terms of an audio receiver?

After decoding and amplifying audio signals, an audio receiver sends them to separate channels, or speakers. A 2.1-channel system, for example, includes a left and right speaker. The .1 signifies a subwoofer.



# How many channels does a typical audio receiver support?

Current audio receivers most commonly support 5.1 channels, although 7.1-channel receivers are becoming increasingly common. 5.1-channel or higher systems are considered to produce "surround sound."



# What do 7.1 channels add to a 5.1-channel configuration?

While a 5.1 system outputs audio to left and right front channels, a center channel, and left and right rear channels, a 7.1-channel system adds two more rear channels to the equation.



# What purpose does each speaker in a surround-sound system serve?

With a DVD/BD movie, the front speakers output the majority of the soundtrack; the center speaker most of the dialogue; and the rear speakers atmospheric effects, such as gun fire. The subwoofer puts the "thud" in explosions.



# Are 2.1-channel speaker systems less expensive than surround-sound systems?

Typically, yes, primarily due to the fact that 5.1-channel and 7.1-channel systems include more speakers.











# LCD TV

# Immerse Yourself In Big Picture & Sound



# Mitsubishi 149 Series LCD Flat-Panel HDTVs (LT-46149/LT-52149)

MSRP: 46-inch model \$2,499 SKU: 8961368

MSRP: 52-inch model \$2,999

SKU: 8961634

www.mitsubishi-tv.com

## **Quick Overview**

The Mitsubishi 149 Series flat-panel TVs with immersive sound provide a simple, space-saving solution for built-in surround sound in your home-theater setup. Without clutter, such as extra cables or speakers\*, these TVs feature an UltraThin Frame™, which will give you more picture and sound without taking up precious space.

#### **Perfect For**

The 149 Series is ideal for home-theater enthusiasts with limited space who are looking for an immersive home-theater experience with a single, stylish, sophisticated unit.\*

## **Outstanding Benefits**

- 1080p LCD flat-panel display with Tru1080p<sup>™</sup> and Plush1080p<sup>®</sup> Processing
- Integrated sound projector for true-to-life 5.1 surround sound\*
- Exclusive 6-Color Processor™ produces bright colors and whiter whites
- . Smooth 120Hz™ minimizes blur
- Deep Color and x.v.Color™ enables more color than ever before
- Four SimplayHD-certified HDMI 1.3a inputs
- **NetCommand** provides a true one-remote control home-theater system
- **USB input** enables you to easily connect USB devices
- Digital cable-ready CableCARD slot allows quick and easy cable setup

### **Coolest Feature**

The 16-Speaker Integrated Sound Projector with variable subwoofer preout gives you true-to-life 5.1 surround sound without bulky receivers or additional speakers.\*

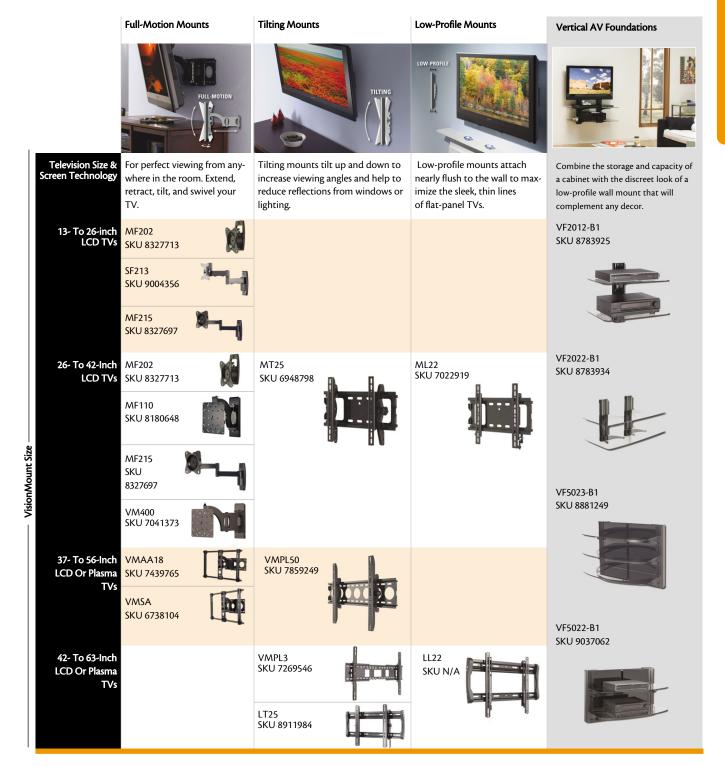


 $<sup>\</sup>ensuremath{^*}$  Adding a powered subwoofer to the TV is recommended for the best sound.

# **Choose The Right Sanus TV Mount**



The Sanus VisionMount line of universal wall mounts provides a variety of smart ways to display your flat-panel TV. In addition to complementing its sleek design, securing your TV to the wall saves space, adds safety (no accidental bumping or falling), and discourages theft. Sanus also offers MountFinder, available at mountfinder.sanus.com, to help you find all compatible mounts for your specific TV. For more information on Sanus mounts, visit Sanus.com or BestBuy.com.



# Rocketfish's Series Of Cables



Finding the right cables is a necessity for any home-theater setup. Rocketfish offers high-quality A/V cables for a number of needs—from subwoofer to HDTV to game console hookups. With these cable connections, you'll be able to expand your home-theater possibilities more than you thought possible.

	In-Wall HDMI Cable SKUs 8881221; 8883513; 8464119	HDMI Cable SKU 8020964	<b>Subwoofer Cable</b> SKU 8315511	<b>Digital Optical Cable</b> SKU 8315147	<b>TOSLINK Optical Cable</b> SKU 7832223	
		00				
Overview	Designed for in-wall instal- lation, this HDMI connec- tor will help you create a home-theater setup that doesn't sacrifice audio or video integrity, while hid- ing unsightly cables	Add high-def compatible device to your home the- ater or connect two A/V components' HDMI ports with this cable	Add a subwoofer to your home-theater audio setup with this multistranded high-purity copper cable to benefit from clear audio and defined base lines	Add stunning digital audio quality to your home-theater audio experience by connecting two audio components with this 8-foot digital optical cable	With enhanced signal trans- fer and improved audio ca- pabilities, this cable will connect TOSLINK-compati- ble devices	
Compatibility	Connects HDMI-compatible components, such as HDTVs, digital cable/satellite boxes, DVD players, A/V receivers, and more	For use with HDTVs, Blu- ray Disc players, set-top boxes, and other A/V de- vices with an HDMI out- put	Use this cable to connect a subwoofer to an A/V re- ceiver or amplifier via an RCA audio connection	HDTVs, A/V receivers, DVD and CD players, as well as set-top boxes with optical outputs can use this cable	Connects DVD or CD players, satellite DVRs, and other devices with a TOSLINK optical output	
Length Of Cable	8, 12, or 25 feet	8 feet	15 feet	8 feet	4 feet	
Braiding	95% copper braid and dual- layer 100% aluminum Mylar foil shields protect against external signal interference	95% copper braid and dual- layer 100% aluminum Mylar foil shields protect against external signal interference	For minimal signal inter- ference, this cable features a 90% copper braid	N/A	N/A	
Plating	24K gold plating for better corrosion resistance and enhanced signal transfer	N/A	24K gold plating for better corrosion resistance and enhanced signal transfer	24K gold plating for better corrosion resistance and enhanced signal transfer	24K gold plating for better corrosion resistance and enhanced signal transfer	
Conductors	Multistranded high-purity copper conductors improve signal integrity and minimize resistance	Multistranded high-purity copper conductors im- prove signal integrity and minimize resistance	Multistranded high-purity copper conductors improve signal integrity and minimize resistance	N/A	N/A	
Sheathing	Fully shielded metal con- nector shell gives you ad- ditional interference protection	N/A	Reduce audio signal inter- ference with 100% Mylar foil shielding	N/A	N/A	
Soldering	Silver soldering maximizes conductivity for better signal transfer and corrosion resistance	Silver soldering maximizes conductivity for better signal transfer and corrosion resistance	N/A	N/A	N/A	
Connectors	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	
In-Wall Rated	Yes	No	No	No	No	
Cable Management	Included RocketClip will help you reduce cable clutter	Included RocketClip will help you reduce cable clutter	Included RocketClip will help you reduce cable clutter	Included RocketClip will help you reduce cable clutter	Included RocketClip will help you reduce cable clutter	

 HDMI Cable SKU 8905839	<b>Component Video Cable</b> SKUs 8315049; 8315058	<b>In-Wall S-Video Cable</b> SKU 8464075	HD Component Video/Stereo Audio Gaming Cable for Xbox 60 SKU 8362595	Female-DVI-to-Male- HDMI Adapter SKU 8315502
Watch your favorite home movies in true high-defini- tion by connecting your HD camcorder to an HDTV with this HDMI cable	Bring two home-theater video components together for great video results with the Component video cable	This S-Video cable is rated for in-wall use to help you avoid cable clutter or can be used for installing custom home-theater setups	Connect this cable to your Xbox 360 to start enjoying HD video on your HDTV or SD video on your regular TV; this package will also let you connect your game console to other compatible home-theater components	This DVI-to-HDMI adapter allows you to link DVI and HDMI com- ponents for seamless integration of your home- theater components
Connect camcorders or other HDMI devices with an HDMI output to HDTVs, monitors, pro- jectors, or other home- theater components	Used to connect two components via RCA component video connection, this cable can be used to connect TVs, A/V receivers, DVD players, and satellite/cable boxes	Connects TVs, DVD players, cable/satellite boxes, receivers, and more through S-Video jacks	Connects Xbox 360 to a HDTV, SDTV, or other compatible home-theater components.	For use with TVs, satellite/cable boxes, re- ceivers, and DVD players with DVI outputs
8 feet	4 or 8 feet	25 feet	8 feet	N/A
Copper braiding ensures quality audio and video signal transfer	99% copper braid and 100% aluminum Mylar foil shield protect against external signal interference	95% copper and dual-layer 100% aluminum Mylar foil shields protect against exter- nal signal interference	N/A	N/A
24K gold plating for better corrosion resistance and enhanced signal transfer	N/A	24K gold plating for better corrosion resistance and en- hanced signal transfer	Gold-plated connectors provide maximum signal transfer	24K gold plating for better corrosion resistance and enhanced signal transfer
Multistranded high-purity copper conductors im- prove signal integrity and minimize resistance	N/A	N/A	N/A	N/A
Dual-layer aluminum Mylar foil shield rejects external audio and video interfer- ence	750hm nitrogen-injected dielectric sheath for quality signal consistency and strength	750hm nitrogen-injected di- electric sheath for quality sig- nal consistency and strength	Dual-shielded for minimum exter- nal video and audio interference. Includes TOSLINK optical output for digital audio connection	N/A
Silver soldering maximizes conductivity for better signal transfer and corrosion resistance	Silver soldering maximizes conductivity for better signal transfer and corrosion resistance	Silver soldering maximizes conductivity for better signal transfer and corrosion resistance	N/A	N/A
Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices	Ergonomic non-slip grip and smooth-fit insertion minimizes risk of damage to connectors or devices
No	No	Yes	No	No
Included RocketClip will help you reduce cable clutter	Included RocketClip will help you reduce cable clutter	Included RocketClip will help you reduce cable clutter	N/A	N/A
				FirstGlimpse

# Which LCD TV Is Best For You?

**S** o you've decided to get an LCD TV. The next step is deciding *which* LCD TV to invest in. With all the models on today's market, you want to be sure the model you select is the best for you and your family. Refer to this chart for further help when shopping.

	Size	Dimensions; Weight**	Native resolution	Viewing angle	Inputs	Outputs	Refresh rate
What It Means	The diag- onal mea- surement of the TV's screen	Height x width x depth; How much the TV weighs	A fixed TV reso- lution; images are best dis- played in the na- tive resolution	The maximum angle at which the viewer can see the screen clearly	Inputs let you connect your components to your TV	Outputs transfer information from your TV to periph- erals, such as audio to speakers	How many still frames of video appear on-screen in one second
Insignia NS-LCD42HD-09 MSRP: \$949.99* SKU 8632802	42 inches	27x39.8x 4.5 inches; 40.7 pounds	1080p	N/A	3 HDMl; 2 Component; 2 S-Video; 2 Composite; 1 PC; 1 RF	2 audio	60Hz
<b>Toshiba 40RV525U</b> MSRP: \$999.99* SKU 9034626	40 inches	25x39.3x3.8 inches; 42.1 pounds (with stand)	1080p	N/A	3 HDMl; 2 Component; 1 S- Video; 1 PC	3 audio	60Hz
RCA L46FHD37 MSRP: \$1,499* SKU 9091476	46 inches	28.6x44.5x 4.4 inches; 66.1 pounds (with stand)	1080р	178 degrees	3 HDMl; 2 Component; 4 Composite; 1 USB; 1 RF	1 audio	N/A
LG <b>42LG70</b> MSRP: \$1,599.95* SKU 8833701	42 inches	27.1x40.4x 4.4 inches; 42 pounds	1080р	178 degrees	4 HDMl; 3 Component; 1 Composite; 1 S-Video; 1 RF	3 audio	120Hz
Sharp AQUOS LC-52D85U MSRP: \$2,299.99* SKU 9034243	52 inches	31.34x49.3x 3.16 inches; 52.9 pounds	1080р	176 degrees	5 HDMl; 2 Component; 2 Composite; 1 S-Video; 1 PC	N/A	120Hz
LG 52LG70 MSRP: \$2,799.95* SKU 8833747	52 inches	33.3x50.6x 5.1 inches; 79.6 pounds	1080p	178 degrees	4 HDMl; 4 Component; 1 Composite; 1 RF; 1 PC; 1 S-Video	2 audio	120Hz
Mitsubishi LT-52149 MSRP: \$2,999* SKU 8961634	52 inches	31.5x47.7x 4.8 inches; 83.8 pounds (with stand)	1080p	N/A	4 HDMl; 3 Component; 2 S-Video; 2 Composite	2 audio	120Hz
Sony Bravia KDL-46XBR8 MSRP: \$4,699.99* SKU 8996508	46 inches	27x49.625x 5.75 inches; 71.6 pounds	1080p	178 degrees	4 HDMl; 2 Component; 3 Composite; 1 S- Video; 1 RF; 1 PC	1 audio	120Hz

<sup>\*</sup>Prices listed in this issue are for general reference and may vary from retailer pricing. \*\*unless specified, this is without stand

# Which Plasma TV Is Best For You?

f you're planning on buying a plasma HDTV, it might be hard to decide on one just by looking at a wall of gorgeous sets. Refer to this chart for further help when shopping.

	Size	Dimensions; Weight**	Native resolution	Viewing angle	Inputs	Outputs	Refresh rate
What It Means	The diagonal measurement of the TV's screen	Height x width x depth; How much the TV weighs	A fixed TV resolution; images are best displayed in the native resolution	The maximum angle at which the viewer can see the screen clearly	Inputs let you connect your com- ponents to your TV	Outputs transfer information from your TV to pe- ripherals, such as audio to speakers	How many still frames of video appear on-screen in one second
Panasonic TC-P42X1 MSRP: N/A SKU 9219213	42 inches	N/A	720p	N/A	3 HDMI; 1 S- Video; 2 Component; 2 Composite	1 audio	N/A
Insignia NS-PDP50 MSRP: \$1,299.99* SKU 8454996	50 inches	32x51.4x 4.2 inches; 95 pounds	720p	N/A	2 HDMl; 2 Component; 1 S-Video; 1 RF; 1 PC	1 audio	60Hz
Samsung PN50A510 MSRP: \$2,099.99* SKU 8802833	50 inches	30.3x48.4x 3.7 inches; 82.5 pounds	1080р	175 degrees	3 HDMl; 1 Component; 2 Composite; 1 S-Video; 1 PC	2 audio	60Hz
<b>LG 50PG60</b> MSRP: \$2,499.98* SKU 8962045	50 inches	31.2x48.7x 3.1 inches; 87.5 pounds	1080р	N/A	4 HDMl; 2 Component; 1 S-Video; 1 RF; 1 PC	3 audio	180Hz
Hitachi P50X902 MSRP: \$3,199* SKU 9015692	50 inches	31.9x48.9x 4.25 inches; N/A	1080р	N/A	3 HDMI; 2 Component; 1 S-Video; 1 RF	1 audio	60Hz
LG 60PG60 MSRP: \$4,099.95* SKU 8961965	60 inches	36.4x57.3x 3.3 inches; 113.9 pounds	1080р	N/A	4 HDMI; 2 Component; 2 Composite; 1 S-Video; 1 USB	2 audio	180Hz
Samsung PN63A760 MSRP: \$5,299.99* SKU 8960207	63 inches	37x60.38x 11.5 inches; 185.2 pounds	1080р	175 degrees	4 HDMl; 1 Component; 1 Composite; 1 S-Video	2 audio	N/A
Pioneer PRO-141FD MSRP: \$7,000* SKU 8982979	60 inches	34.5x57.68x 2.53 inches; 110 pounds	1080р	N/A	4 HDMl; 1 Component; 1 Composite; 1 PC	N/A	60Hz

<sup>\*</sup>Prices listed in this issue are for general reference and may vary from retailer pricing. \*\*unless specified, this is without stand

# **HDTVs**

# The Goods On LCDs, Plasmas & RPTVs

#### Pros

- The thin profiles and light weight of these televisions make them easy to mount on a wall.
- · Power demands are a bit lower than comparably sized plasma displays and considerably lower than CRT televisions.
- Many LCD TVs have a VGA input, so you can hook up your computer and view content on a big, bright screen.
- Altitude and air pressure have no effect on LCD TVs, so performance doesn't suffer in the mountains.
- · Image burn-in is unlikely.

#### Cons -

- · Fast-moving images may suffer from a slight trailer effect, but as LCD technology has improved, the effect has become barely perceptible.
- · When pixels stick on or off, they show up as either a pinpoint of bright light or black and can be distracting on-screen.

#### Best For —

- Bright, sunny kitchens
- Small rooms

## Plasma

#### **Pros**

- Plasma TVs' light phosphors evenly across the screen to create images, and the images are consistently bright and clear with vibrant colors.
- · The contrast ratio is high (30,000:1), so you'll see deep, dark blacks and bright, crisp whites.
- The design and technology of plasma TVs lend themselves to large screen sizes—typically 50 inches or greater.
- · Rapid pixel response means no blurry motion.
- · Wide viewing angles give you the same high-quality images on-screen no matter where in the room you happen to be sitting.

#### Cons -

- Although the risk has been greatly reduced through advances in flat-screen technology, some plasma TVs are still susceptible to image burn-in if not cared for properly.
- · A combination of low air pressure and high altitudes (6,500 feet and higher) may cause plasma TVs to buzz.

#### Best For

- Movies with nonstop action
- Sporting events

#### Pros -

- RPTVs (rear-projection TVs) are surprisingly lightweight for their sizes.
- You'll find exceptional picture quality on very big screens (65 inches and larger).
- · As screens get bigger, RPTVs tend to be more cost-effective than LCD or plasma TVs.

#### Cons -

- With depths of 16 to 24 inches, these TVs are far too big and bulky to mount on a wall.
- RPTVs still require that lamps, which may cost a few hundred dollars, be replaced every few years.

#### Best For

- · Big, roomy home theaters
- · Movies and games









# Accessories & Services

s you head toward the HDTV section of your local consumer electronics store, you'll invariably pass shelves of bland-looking HDTV accessories. Sure, these accessories have multichannel audio, gold-plated connectors, nitrogen-injected insulation, and fully articulating mounting arms, but they

can't compete visually with their big-screen flat-panel HDTV counterparts. Despite outward appearances, however, there are a handful of accessories that are vital to getting the most from your HDTV. Following is a rundown of accessories we recommend to complete your home-theater setup. FG

#### WALL MOUNTS & BRACKETS

- Enable you to view your HDTV from the best possible angle
- Give you the ability to adjust your HDTV when necessary
- Maximize space in your living area

#### **HDMI CABLES**

- Carry uncompressed digital audio/video signals to and from your HDTV and its components
- Shielding in higher-end models eliminates interference from other components
- Well-built connectors ensure a snug, stable fit

#### **CLEANING KIT**

- Protect your HDTV's screen by using specially formulated sprays and cloths
- Eliminates the dangers of scratching delicate screens
- No-drip formulas prevent damaging other home-theater equipment

#### CORD CONCEALMENT KIT

- Hide multiple cords while keeping them organized
- Minimize cord clutter, especially with wall-mounted sets
- Keep the focus on your new HDTV and not the cords connected to it

### UNIVERSAL REMOTE CONTROL

- Simplify your home-theater setup with one remote that can control all of your components
- Program functions to watch a movie with the click of one button, for example
- Easily view options in the dark with a backlit LCD

#### SURGE PROTECTORS/POWER CONDITIONERS

- Save your home theater from potential damage by using a surge protector that will absorb electrical fluctuations
- Filter out "dirty power," also known as electrical "noise" and radio interference, that can degrade your home theater's audio and video with a power conditioner
- Have peace of mind knowing that your home theater will give you its peak performance for the longest amount of time

#### SURROUND-SOUND SYSTEM

- Maximize your HDTV experience with more theater-like audio
- Feel like you're in the movie scene instead of just watching it
- Even out softer and louder programming with an equalizer

#### **TV STANDS**

- Offer flexibility if you're unable to mount your HDTV on the wall
- Available in a variety of finishes to match any décor
- Provide a place for additional home-theater equipment

#### **HOME-THEATER SERVICES**

A home theater is a pretty big investment, so it's wise to consider letting a professional handle your installation and setup. Let your local CE retailer tackle the following tasks, and you'll be able to enjoy the full glory of HD in no time.

- Home Theater In-Home Consultation
- TV Recycling
- TV Calibration
- TV Mounting & Cord Concealment
- Remote Control Programming
- Speaker Setup



# Canon PowerShot SD780 IS

A Pocket-Sized Photo Powerhouse With Style



iorgio Armani once said, "the difference between style and fashion is quality." The same could be said for digital cameras; many cameras

are stylish, but they offer limited capabilities. We all want a tiny camera with a big LCD screen and tons of features crammed in a lightweight body. And, as in fashion, we also want the camera to have good looks while having the best qualities.

Enter the Canon PowerShot SD780 IS (\$279.99; www.usa.canon.com), an ultraslim point-and-shoot digital camera designed for optimum features, a small camera body, and fun style.

Features of the 12MP PowerShot SD780 IS include a 3X optical zoom with Optical Image Stabilization, which reduces the likelihood of your photos suffering from motion blur; Face and Motion Detection (powered by the DIGIC 4 Image Processor), which tracks the faces of moving subjects and can operate with the camera's self timer; Blink Detection; Intelligent Contrast Correction; Red-Eye Correction: and Smart AUTO, which uses 18 intelligent shooting situations to automatically select the right camera settings for the shot you're trying to capture. These features ensure you can concentrate on getting the right shot while the SD780 IS has all of the technical details taken care of.

To complement the Smart AUTO settings, the PowerShot SD780 IS also features 20 preset shooting modes, including Auto, Program, Portrait, Foliage, Snow, Beach, Sunset, Fireworks, Aquarium, Underwater, Indoor, Kids & Pets, Night Snapshot, and Stitch Assist, which allows you to create panoramic images from multiple shots.

You can use the optical viewfinder to frame your mini masterpieces or you can view your subjects through the large 2.5inch LCD screen with the wide viewing angle. If you want to capture video, as well as still images, the PowerShot SD780 IS features a 720p HD Video Mode so you can make mini films in HD. With a mini HDMI port on the camera, you can connect the PowerShot SD780 IS to your HDTV to display up to 130 of your photos at once, or sit back and play back your HD memories with the best audio and video quality available.

To mix up your photography results, the SD780 IS can also add in-camera color effects to your photos. Whether you want to highlight one object's color and leave the rest of your shot black and white or swap your options for a hue you've captured, the SD 780 IS gives you plenty of colorful options to choose from, including Vivid, Vivid Blue, Vivid Green, Vivid Red, Neutral, Sepia, Black & White, Positive Film, Lighter Skin Tone, Darker Skin Tone, and Custom.

And don't forget about style-the PowerShot SD780 IS comes in a variety of colors, but with a striking twist. The whole camera body is one solid color, lens and all. So whether you choose a fiery red, smooth black, cool silver, or shiny gold paint job, you can make a fashionable statement with your camera. Everyone will be impressed when you coordinate your new camera with your entire outfit.

Whether you're a part-time shutterbug, a new parent intent on documenting every moment during your baby's first years in both stills and video, or a photo-happy fashionista with an itchy trigger finger, the PowerShot SD780 IS is ideal for you. FG

# Discover A D-SLR

# Find More Flexibility With Images

f you've decided that it's time to purchase a new camera, consider investing in a D-SLR rather than sticking to the point-andshoot digital camera family. Many people shy away from D-SLRs because they think you need to have professional-level knowledge about photography, but in reality D-SLRs are much more user friendly than you may think. With the power of a D-SLR, you'll be able to capture professional-quality images of everything from mountain landscapes to dew on daisies.

**Increase Your Versatility** 

One of the biggest differences between a point-and-shoot and a D-SLR is the ability to swap out camera lenses for different situations. Changing a D-SLR's lens enables you to create different photo results, such as broad shots of a sun setting on the horizon with a wideangle lens or up-close shots of tiny seashells awash in beach sand with a macro lens. (See the "Take Your Photos Further With A Lens" sidebar for more details on different lens types.)

In addition to automatic settings, D-SLRs enable you to control a wide variety of manual settings such as exposure, sharpness, contrast, and more. Even though some advanced point-andshoot cameras let you adjust some manual settings, the flexible functionality of a point-and-shoot camera doesn't compare to that of a D-SLR. But what really sets the D-SLR apart from the point-and-shoot camera is the image quality. Larger image sensors, faster shutter speeds, and higher-quality

lenses all play a role in making a picture taken from a D-SLR far superior to the same picture taken with a pointand-shoot.

## **Get The Best Shot**

All this means that whether you're taking snapshots of your family during

the holidays or shooting landscapes during your next vacation, a D-SLR will boost the image quality and show you how much fun creative photography can be to produce. Just use your imagination and let loose with a D-SLR. FG

BY TESSA WARNER BRENEMAN

# **Take Your Photos Further With A Lens**

One of the biggest benefits to owning a D-SLR is that with the right lens, the possibilities are virtually endless. Some D-SLRs come with a standard lens (also known as a kit lens) in the 30 to 50mm focal length range, which closely matches the perspective of the human eye. In order to expand your photographic horizons, however, you can branch out and purchase specialty lenses.

For example, if you want to take landscape photos while visiting Rocky Mountain National Park, a wide-angle lens (which has a focal length of 30mm and lower) will help capture broad views and prevent distortion at the edges of your photos. Capture the wildlife that crosses your path with a telephoto lens (which has a focal length greater than 50mm), enabling you to achieve photos of subjects that are located far from you. Additionally, a macro lens, which can vary in focal length, can help you photograph tiny subjects such as grasshoppers

and columbine flowers.





# Get A Better Memory Card

# **Speed Up Your Photography Results**



ost digital cameras have internal memory that will store the photos you capture. Even so, your camera's internal memory is prob-

ably small and won't suffice as enough storage space, which can limit your photo-shooting potential. For this reason, it's essential to buy the right memory card based on factors other than camera compatibility and a low price tag. In this article, we'll tell you how to find a memory card that will let you snap photos and transfer data faster, putting your photo results at a premium.

### Where Do I Start?

Different types of memory cards are available, such as SD (Secure Digital), MMC (MultiMedia Card), xD-Picture Card, and CF (Compact Flash), and they are offered in capacity sizes from 512MB or more. When buying a memory card, you should find a card type that's compatible with your camera and has a large enough capacity for your photography; however, if you want to save and view your photo files more quickly, a card's read/write speed should also be taken into consideration.

Memory card writing speeds are usually listed as 32X, 40X, and so on. Those numbers represent how fast a card can store and save photo data. It also indicates how quickly the card can read your photo data when viewing it on a memory card-compatible device,



# The Need For Speed

Our camera's capabilities, such as the number of megapixels it uses, can affect how quickly you're able to snap photos. To get the most out of your digital memory card speed and capacity.

Camera Megapixels	Memory Card Speed*	Memory Card Capacity*
3 to 5MP	32X	512MB
6MP	40X	512MB
7MP	50X	2GB
8MP	50X	2GB
9MP or more	80X	4GB
*Recommended minir	nums	

such as your computer or HDTV. The higher the number a card's read/write speed rating is, the faster data will be written and accessed. For example, a card with an 80X speed rating will operate twice as fast as a card that has a 40X speed rating.

# **Don't Let The Memories** Pass

Because you don't want to miss a single special moment, having your camera at the ready to take many photos in a short amount of time is paramount. A

memory card with a faster read/write speed will enhance your camera's performance, helping you take multiple photos of fast-action subjects, such as your nephew victoriously crossing the track finish line or gophers scurrying in and out of their homes at the zoo, with swift, uninterrupted action.

Camera specifications also play into how quickly photo data can be written to a memory card. To make sure you match the appropriate card to the capabilities of your camera, take a look at the "The Need For Speed" chart.

## Upgrade To A New View

### The Benefits Of HD Camcorders

f you've tried watching home videos recorded on an old SD (standard-definition) camcorder on an HDTV, you know that there's a big video quality difference between your home videos and the high-definition content you regularly see. In this article, we'll explain the benefits of HD camcorder video quality and advantages of using an HD camcorder with your home theater or PC.

#### **Crystal Clear Video**

HD camcorders provide a substantial improvement in video quality because the high-resolution format records greater detail, broader color depth, and sharper

#### For The Record

here are two common HD video space per minute than HDV, so your camcorder's storage media will fill up faster. AVCHD lets you record to DVDs, hard drive, or flash memory, To edit these video formats, AVCHD corder to your PC.



video images than SD. It's also worthwhile to note that HD camcorders capture video in the widescreen format, also known as 16:9, so you won't see the black bars that appear when you play back video in the 4:3 format on an HDTV.

HD camcorders may capture video at 720p, 1080i, or 1080p, and models that record in 1080p are often listed as Full HD or True HD because 1080p provides higher resolution than 720p and better image quality than 1080i resolutions.

#### **HD Camcorders & HDTVs**

Typically, HD camcorders include the cables you'll need to connect the camcorder to your HDTV, and many offer an HDMI output, so you can play back your HD content over the highest-quality (uncompressed digital video and audio) connection. Additionally, most provide an integrated microphone or external microphone port that can capture a multichannel digital audio recording format, such as Dolby Digital 5.1 surround sound. If your home theater has a surround-sound audio setup, you can experience the spatial sound effects and distinct voice separation of multichannel audio.

#### **HD Home Videos & PCs**

For those who prefer to edit their videos to add special effects and polish footage, HD camcorders allow you to transfer video in near-HD quality to your PC. An important item to note when editingyou'll need software that is compatible with your HD camcorder's video recording format. (See the "For The Record" sidebar.) After you've edited your highquality footage, if your PC features a BD (Blu-ray Disc) burner, you can burn your video creation to share with friends.

BY NATHAN LAKE

# Spanning The Spectrum

## **Focal Lengths Explained**

f you've shopped for a D-SLR camera, you've probably noticed that many are available in a kit that includes a camera body and lens. Kit lenses typically have a focal length range of 18 to 55mm. Focal length describes a lens' zoom capabilities. There are many other lenses available, each of which has a different purpose. For example, telephoto lenses let you zoom in to get a closer look, whereas wide-angle lenses let you see more of your surroundings. By understanding the difference in focal lengths among lenses, you'll have a better knowledge of which type of lens best suits your needs. If you're in the market for your first D-SLR, you may find that using a lens other than the kit lens will best suit your needs. As a result, you may decide to forgo the kit lens and save money by buying just the camera body and then put the money you saved toward a specialized lens.

#### **Basic Lens Types**

Typically, lenses are grouped into categories based on their focal length. A wide-angle lens gives you a broad field of view. Wide-angle lenses usually have a focal length of 30mm or less. Standard lenses have focal lengths ranging from about 30 to 50mm. This type of lens most closely matches the perspective of the human eye. Telephoto lenses magnify objects and typically have focal lengths more than 50mm. Lenses with a focal length greater than 200mm are called supertelephotos. Close-up or macro lenses let you focus on something that is a short distance from the camera. Macro lenses can range in focal length.

#### **Choose Your Zoom**

In general, the kit lens that accompanies a D-SLR is a good starter lens. As your photographic needs grow, it's worth considering specialized lenses. Because focal length determines your range of view, it will play a big part in helping you decide which type of lens will best suit your photographic needs. FG

BY JENNIFER JOHNSON

## **Shooting Range**

A standard lens is perfect if you want a range of wide-angle to slightly telephoto views. With a macro lens, you can take close-up

shots of small objects, such as flower petals.

If you're into nature photography, you may want a telephoto zoom lens. With

this lens, you'll also be able to capture your son's facial expression as he shoots a goal, even if you're on the other end of the soccer field.







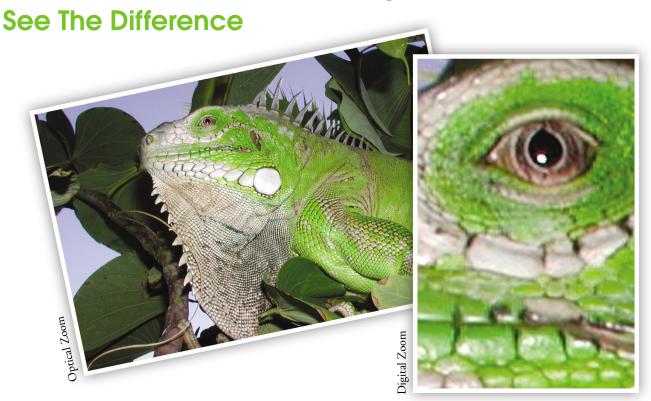






Here's a look at the same picture, using different focal lengths. Notice how the picnic table is hardly noticeable in the first shot but becomes very obvious when you zoom in.

# Optical vs. Digital Zoom



he zoom lens is a wonderful tool. You can zoom out to capture a wide-angle landscape or zoom in and use the camera's telephoto capabilities to bring a distant subject even closer. When shopping for a pointand-shoot camera (as opposed to a D-SLR), you'll notice that each camera features an optical zoom and a digital zoom. Before you get too enthusiastic about having the extra telephoto capabilities of a digital zoom, it's important to understand the difference between optical and digital zoom and how they affect image quality.

For both examples, we will imagine that we're taking pictures with a 5MP camera that is set to capture images at the highest quality level.

Optical zoom uses the camera's lens (optics) to magnify the view. When using only optical zoom, the camera will capture an image file containing 5MP of information. Because only the camera's lens is used to capture the full amount of megapixels, your image will be sharper and smoother than with digital zoom.

Digital zoom, which you can usually turn on or off in the camera's setup menu, engages when you've zoomed in as far as you can with the optical zoom. When looking at the camera's LCD or through the viewfinder, it appears that the camera is zooming in even more, but in reality, the camera has simply enlarged part of the image and cropped the rest. By cropping the image, the camera has discarded some of the image's pixels, leaving you with an image that contains far fewer pixels than one shot with an optical zoom. For example, using our previous 5MP camera, we take a picture that engages digital zoom. The camera crops out 2MP of image data so the image file now contains only 3MP of image data. Because we're using a 5MP camera, however, the camera must produce an image with 5MP of data. In order to do this, the camera interpolates (invents) the missing pixels and adds them to the image file. The resulting image is almost always softer than the original, and individual pixels may be visible when the picture is enlarged.

So, when you're shopping for a digital camera, ignore the digital zoom specifications. And, for the best image quality and ability to make larger prints, use only the optical zoom when shooting. FG

BY THEANO NIKITAS

# THINGS TO KNOW

Camcorder Add-Ons

#### Lights

What are the primary advantages of an add-on light for my digital camcorder?

The extra light helps fill in dark areas in your shooting environment, which will result in footage with improved color and sharpness.

How do add-on lights fit onto my digital camcorder?

You can either use a hot shoe, which is a mount with an electronic connection to your camcorder, or you can purchase a mounting bracket.

How do I power an add-on light?

Many video lights use the camcorder's hot shoe, which uses the camcorder's battery to power the light. The light may also include its own rechargeable battery or AC adapter.

What does a light's illumination range mean?

The illumination range is a measure of how far, generally in feet, the light can fill in the dark spots in a setting.

#### Camcorder Filters & Lenses

Why should I use a filter with a digital camcorder?

Filters can intensify colors; improve video clarity, detail, and contrast; add visual effects; reduce haze; and more. Although some photo-editing apps integrate software-based filters, some believe these can't replicate physical filters.

What is a UV filter?

Also called skylight filters, UV filters reduce the amount of ultraviolet light that enters a lens, thus reducing haziness. UV filters also protect a lens from dust, scratches, etc.

What is a polarizer filter?

They primarily reduce glare and reflections that enter the camcorder's lens, such as those coming off water or snow. A polarizer filter also enhances, or intensifies, colors.

How much do filters cost?

A common UV filter typically costs less than \$40 and starts at about \$11. A polarizer filter starts at \$19.99.









#### **Microphones**

Q

#### Why should I invest in a camcorder microphone?

Aftermarket microphones deliver excellent audio quality for a variety of filming scenarios.

## What is a shotgun microphone?

Shotgun-style microphones, also referred to as zoom mics by some manufacturers, pick up sound from the direction in which they're pointed and are generally either mounted to the camcorder itself or at the end of a boom pole.

## What is a lapel microphone?

A lapel microphone is ideally suited for interviews. These commonly wireless omnidirectional microphones attach to the subject's clothing with a clip.

## What does the zoom function of a microphone refer to?

Zoom-capable microphones can widen and narrow their recording distance to pick up sounds coming from the subject, regardless of the subject's distance from the camera.

#### What is a shoe mount?

The shoe mount is designed to let you attach accessories, such as microphones and flash modules, and is typically located on the top side of a camera or camcorder.

#### **Editing Software**



#### Why do I need video-editing software?

Raw video looks more professional when it's edited, given titles, and processed by quality enhancement filters.



#### What kinds of things can editing software do?

Editing software can capture your camcorder footage and let you rearrange scenes, add music, and much more.



#### Can I edit in high definition?

Yes, if your camcorder records high-def video. You'll usually have to pay a little more to buy the "ultra" or "premium" version of a video-editing suite, though.



#### Can I make videos for YouTube and other sites?

Most editing software lets you create videos that match the formatting requirements of video-sharing sites.



## Can I make videos for my iPhone or other mobile device?

Again, yes. Today, most editing suites offer support for the video formats and resolutions of handheld devices.



## How powerful does my PC need to be for video editing?

You should have a multicore processor, 2GB or more RAM, and 10GB or more free hard drive space.











## Camcorder

## Style, Simplicity, Performance



#### JVC GZ-HD300 HD Everio Camcorder

#### MSRP: \$699.95

SKUs: 9186141 (onyx black) 9186178 (sapphireblue) 9186178 (ruby red)

www.jvc.com

#### **Quick Overview**

The JVC high-definition GZ-HD300 Everio camcorder packs a lot of style and performance into its compact form. The GZ-HD300 lets you record up to 25 hours of 1920 x 1080 high-definition video on its 60GB hard drive. The GZ-HD300 features One Touch Export to iTunes, One Touch Upload to YouTube, and One Touch DVD Creation for archiving and storing videos on discs. Available in three unique colors, the GZ-HD300 is a great accessory to any event.

#### **Perfect For**

Those who want to capture high-quality video in style.

#### **Outstanding Benefits**

- · World's smallest HD camcorder with a built-in hard drive
- 1920 x 1080 full HD recording with 1080p 60fps output
- 20x optical zoom with Konica Minolta HD lens
- 24Mbps high bit rate recording with 3.05M CMOS Sensor
- · Laser Touch Operation touchscreen makes it easy to zoom, record, and browse through thumbnail images of recorded content
- Digest Playback picks out highlights of your recorded content for you to view
- Face Detection Technology
- · Supports microSD and SDHC memory cards

#### **Coolest Feature**

The GZ-HD300's One Touch feature lets you easily download content to iTunes or upload videos to YouTube.



## Style, Simplicity& Performance Packed Into A Pocket-Sized Camcorder

## JVC High-Definition Everio Camcorders



#### **Simplicity & Performance**

For anyone with a hectic lifestyle, JVC's GZ-HM200 and GZ-HD300 camcorders (\$579.95 and \$699.95, respectively; www.jvc.com) pack several features into a convenient, compact size. With a camcorder that's small enough to drop into your purse, you can capture video memories in crystal-clear HD at your kid's baseball tournaments or birthday parties.

The GZ-HM200 and the GZ-HD300 record and play video at full-HD resolution of 1,920 x 1,080, giving you the best in HD. Your video will also look seamless and free of jagged lines that can appear during fast-action scenes with the camcorders' 60fps (frames per second) playback conversion. And for those occasions when you need to zoom in to document the action, such as your child's expressions after a game-winning victory, the GZ-HM200 and GZ-HD300's Konica Minolta HD lens with 20x optical zoom and Face Detection will deliver precision focus and exposure in auto record mode.

The new line of Everio camcorders offers plenty of recording format options. The GZ-HM200 uses SD/SDHC memory cards to store video, while the GZ-HD300 features a 60GB hard drive and is compatible with microSD/SDHC memory cards. It's the world's smallest HD camcorder with a built-in hard drive.

Both camcorders offer a slim touchscreen located next to the camera's LCD with LaserTouch Operation. Gone are the days where you need to try to determine the quality of your shot through a LCD laden with fingerprint smudges. With a finger swipe, LaserTouch Operation will let you perform different zoom and record functions as you film precious memories.

#### **Share With A Single Touch**

Personal videos couldn't be easier to show to loved ones close or faraway. Simply connect thecamcorder to your PC's USB port and JVC's One Touch Export feature will direct you through the upload process. With the touch

of a button, your footage can be added and properly formatted for your iTunes or YouTube collection. For instant viewing pleasure, you can watch your video creations on your video iPod or iPhone or email Web links of your content.

There are plenty of life's special moments to record, such as your parent's 50th wedding anniversary celebration or your children playing in the ocean, and JVC's Everio camcorders offer an easy and entertaining way for you to revisit your cherished memories. With One Touch Digest you'll be able to create and view five-minute "highlight reels" of your adventures. Now you won't need to put friends and family through a yawn-inducing 60-minute show and tell.

#### **Style Points**

Consumer electronics don't need to be a bore, and JVC's GZ-HM200 and GZ-HD300 are proof. With a fun variety of colors available—from sapphire blue to onyx black to garnet red—you will find a camcorder that's simple, stylish, and fashionable. FG



## **FUJ!FILM**

## Digital Camera

## Anywhere, Anytime, Any Condition





#### Fujifilm FinePix Z33WP

MSRP: \$199.95 SKU: 9223761 (blue) www.bestbuy.com/fuji







#### **Quick Overview**

Best Buy Exclusive Color! The Anywhere, Anytime, Any Condition digital camera. The FinePix Z33WP is waterproof up to 10 feet, and with features like One-Touch Movie recording that can stop and restart, Blog mode, Face Detection, and Picture Stabilization, it's the perfect camera for the active lifestyle.

#### **Perfect For**

The Z33WP is perfect for the active family or individual who lives life to the fullest every day and wants to capture every moment in still pictures or movie clips without worrying about damaging their camera.

#### **Outstanding Benefits**

- · Waterproof to 10 feet (3meters)
- 10 MegaPixel Power for sharp, clear images
- Fujinon 3X Optical Zoom and 5.7X Digital Zoom
- 2.7-inch LCD with 230,000 pixel resolution
- SR Auto Automatic Scene Recognition mode detects six scene types
- Picture Stabilization helps eliminate blurry pictures
- Face Detection with Automatic Red Eye Removal
- One-Touch Movie mode captures movies at 30fps with sound

#### **Coolest Feature**

A "life-proof" digital camera lets you capture pictures Anywhere, Anytime, and under Any Condition . . . even under 10 feet of water. Now you can take your camera out to capture pictures in rain, snow, mud, or any other time you haven't used your camera in the past for fear of damaging it.





## Digital Camera

## Dive In With The Camera That Goes Anywhere





#### **Olympus** STYLUS-550WP

MSRP: \$199.99

SKUs: 9224109 (teal) 9225493 (blue) 9225484 (black)

www.olympusamerica.com

#### **Ouick Overview**

Sport cameras don't get much more convenient than this. With its 3x optical zoom, 10MP image quality, and point-and-shoot ease, the 550WP would be attractive enough. It's also waterproof, able to capture blur-free action pics, and features a host of automatic image optimizers. With Intelligent Auto, the 550WP uses optimal settings to take photos and Perfect Fix lets you remove imperfections after you've taken a photo.

#### **Perfect For**

On-the-go, active people who enjoy swimming, boating, snorkeling, surfing, water skiing, snow skiing, camping, hiking, river rafting, and more.

#### **Outstanding Benefits**

- · Waterproof up to 10 feet
- 10-megapixel resolution with 3x optical zoom
- Intelligent Auto automatically identifies the scene you're shooting and adjusts the settings to optimize the results
- Face Detection assures you of the right focus and lighting on your subjects' faces
- Digital Image Stabilization and an ISO 1600 setting give you crystalclear action shots
- · Perfect Fix lets you remove red-eye and brighten shadows in the camera after you've taken the photo
- Olympus Master 2 software uploads your videos to YouTube

#### **Coolest Feature**

You don't have to worry about a little rain—or even a dunk in the pool.





## Digital Camera

## The Big Zoom That Fits In Your Pocket





#### **Olympus** STYLUS-9000

MSRP: \$329.99 SKU: 9225359

www.olympusamerica.com

#### **Quick Overview**

Need a camera that you can fit in your pocket? Want a model that offers a long-range zoom to capture thrilling close-ups, as well as a wideangle lens for breathtaking panoramic pictures? With many digital cameras, you'd be stuck in a "needs" vs. "wants" debate, but not with the Olympus STYLUS-9000. This 12MP wonder features a 10x optical zoom in a 3.8-inch wide and 1.2-inch deep body.

#### **Perfect For**

People who want to take their cameras everywhere and don't want to be limited to photographing nearby objects.

#### **Outstanding Benefits**

- 10x wide-angle optical zoom lens. Allows you to photograph a panoramic view, as well as bring a subject 10 times closer.
- Dual Image Stabilization. Combines Sensor-Shift Image Stabilization with the ability to use high ISO sensitivity and fast shutter speeds.
- Intelligent Auto. The STYLUS-9000 automatically identifies the scene you're shooting and adjusts the settings to optimize the results.
- **Face Detection.** Tracks up to 16 different faces and automatically focuses and compensates for shadows in portraits.
- **Beauty mode.** Softens shadows and smooths wrinkles and blemishes.

#### **Coolest Feature**

An in-camera panorama mode enables the camera to stitch together a scenic wide-angle photo from multiple photos. All the user has to do is simply press the shutter button and slowly pan the camera.



## Which Point-&-Shoot Camera Is Best For You?

f you're a little confused about the most important features in a digital camera, you're not alone. In this chart, we compare features from select digital cameras, and we also explain what these features mean.

		Resolution; Optical zoom	Shutter speed	Memory card	LCD size	Battery life	ISO	Movie mode
	What It Means	More pixels mean bigger and clearer prints; Moves the lens closer to your subject	A faster shutter speed will let you snap ac- tion photos without blur	Removable card that stores your photos in your camera	The LCD is the display on the back of the camera	Based on how many shots you can take on a single charge	A higher ISO lets you take better pho- tos in low- light settings	Lets you re- cord short video clips on your dig- ital camera
	Kodak EasyShare M893 IS MSRP: \$149.95* SKU 9076938	8.1MP; 3X	4 to 1/2,000 second	SD/SDHC	2.7 inches	N/A	Auto; Manual: 90, 100, 200, 400, 800, 1600	Yes
	Fujifilm Z33WP MSRP: \$199.95* SKU 9223761	10MP; 3X	1/4 to 1/1,000 second	SD/SDHC	2.7 inches	N/A	Auto; Man- ual: 64, 100, 200, 400, 800, 1600	Yes
CONSTRUCT.	Olympus Stylus 550WP MSRP: \$199.99* SKU 9224109	10MP; 3X	1/2 to 1/1,000 second	xD-Picture Card, mi- croSD	2.5 inches	N/A	Auto; Manual: 64, 100, 200, 400, 800, 1600	Yes
Date (Salar)	Casio Exilim EX-Z250SR MSRP: \$249.99* SKU 9107487	9.1MP; 4X	1/2 to 1/2,000 second	SD/SDHC/ MMC/ MMC plus	3 inches	322 shots	Auto; Manu- al: 64, 100, 200, 400, 800, 1600	Yes
Commo	Canon PowerShot SD780 IS MSRP: \$279.99* SKU N/A	12.1MP; 3X	15 to 1/1,500 second	SD/SDHC/ MMC/ MMC Plus	2.5 inches	210 shots	Auto; Manual: 80, 100, 200, 400, 800, 1600	Yes
Version	Pentax Optio W60 MSRP: \$299.95* SKU 9217251	10MP; 5X	1/4 to 1/1,500 second	SD/SDHC	2.5 inches	205 shots	Auto; Manual: 64, 100, 200, 400, 800,1600, 3200, 6400	Yes
944	Olympus Stylus 9000 MSRP: \$329.99* SKU 9225359	12MP; 10X	1/4 to 1/1,000 second	xD-Picture Card/mi- croSD	2.7 inches	N/A	Auto; Manu- al: 64, 100, 200, 400, 800, 1600	Yes
BOSTY	Sony Cyber-shot DSC-T700/H MSRP: \$399.99* SKU 8942601	10.1MP; 4X	1/4 to 1/1,000 second	Memory Stick Duo/Mem- ory Stick PRO Duo	3.5 inches	N/A	Auto; Manu- al: 80, 100, 200, 400, 800, 1600, 3200	Yes

<sup>\*</sup>Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which D-SLR Is Best For You?

A s D-SLR prices keep coming down, more photographers are turning to them, both as a first camera and as a trade-up to something better. In this chart, we'll help you sort through some of the features and performance specs from select D-SLR cameras.

		Resolution	LCD size	ISO range	Kit lens	Burst speed	Shutter speed
	What It Means	Image sensor in megapixels; more means a bigger image	Diagonal measure of display on back of camera	A higher ISO range will let you take better photos in low- light situations	Standard lens bundled with the camera body	Frames per second (fps) you can shoot while in burst mode	The wider the range, the greater the gamut of long exposures to frozen action
	Casio Exilim EX-FH20 MSRP: \$599.99* SKU 9051063	9.1MP	3 inches	100 to 1600	N/A (fixed lens equivalent to 26-520mm f/2.8-4.5)	40fps	1 to 1/2,000 second
	Olympus Evolt E-520 MSRP: \$699.99* SKU 8928958	10MP	2.7 inches	100 to 1600	14-42mm f/3.5-5.6 Zuiko lens	2.5fps to card capacity	60 to 1/4,000 second
COHOR	Canon EOS Rebel XSi MSRP: \$799.99* SKU 8794691	12.2MP	3 inches	100 to 1600	EF-S 18- 55mm f/3.6- 5.6 IS	3.5fps up to 53 shots	30 to 1/4,000 second
FIRM I	Pentax K200D MSRP: \$1,199.99* SKU 9217297	10.2MP	2.7 inches	100 to 1600	18-55mm lens	N/A	30 to 1/4,000 second
	<b>Nikon D90</b> MSRP: \$1,299.95* SKU 8975184	12.3MP	3 inches	200 to 3200	AF-S DX Nikkor 18-105mm f/3.5-5.6G ED VR	4.5fps	30 to 1/4,000 second
	Panasonic Lumix DMC-L10K MSRP: \$1,299.99* SKU 8815464	10.1MP	2.5 inches	100 to 1600	LEICA D VARIO- ELMAR 14- 50mm f/3.8-5.6	3fps to card capacity	60 to 1/4,000 second
	Canon EOS 50D MSRP: \$1,599.99* SKU 9004418	15.1MP	3 inches	100 to 1600	EF 28-135mm f/3.5-5.6 IS USM lens	High-speed max- imum 6.3fps; low- speed maximum 3fps	30 to 1/8,000 second
	<b>Olympus E-3</b> MSRP: \$1,699* SKU 8682776	10.1MP	2.5 inches	100 to 3200	N/A (body only)	5fps to card capacity	60 to 1/8,000 second

 $<sup>^{*}</sup>$ Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which Digital Camcorder Is Best For You?

igital camcorders come in a number of formats: DVD, hard drive, flash drive, MiniDV, and high definition are the most common. By comparing the following digital camcorders, you can determine which recording format and product best fit

		LCD size	Optical zoom; Digital zoom	Recording speeds	Memory card	Digital still resolution	Lines of resolution
	What It Means	Diagonal length of viewing screen	Two methods for magnifying depth of field; optical zoom is better	The speeds a particular cam- corder can uti- lize during recording	Compatible flash card types (cards not in- cluded unless noted)	The number of megapixels the camcorder can capture in still images	Number of lines of horizontal reso- lution; the higher the number, the greater the detail
MinibV	Panasonic PV-GS90 MSRP: \$279.95* SKU 8671528	2.7 inches	42X; 2,000X	SP/LP	N/A	N/A	N/A
DVD	Panasonic VDR-D50 MSRP: \$349.95* SKU 8673269	2.7 inches	42X; 2,000X	XP/SP/LP	SD/SDHC	0.3MP	500
ash Drive	Samsung SC-MX20 MSRP: \$299* SKU 8907365	2.7 inches	34X; 1,200X	N/A	SD/SDHC	N/A	N/A
Flash	Canon FS100 MSRP: \$399* SKU 8732598	2.7 inches	37X; 2,000X	XP/SP/LP	SD/SDHC	0.8MP	N/A
Drive	Canon VIXIA HG20 MSRP: \$949* SKU 8916925	2.7 inches	12X; 200X	LP/SP/XP+/ FXP/MXP	SD/SDHC	2.76MP	N/A
Hard Drive	JVC GZ-HD300 MSRP: \$699.95 SKU 9186141	2.7 inches	20X; 200X	UXP/XP/ SP/EP	microSD/ microSDHC	2.1MP	1080
Drive	Sony HDR-CX12 MSRP: \$799.99* SKU 8894388	2.7 inches	12X; 150X	FH/HQ/ SP/ LP	Memory Stick PRO Duo	10.2MP	1080
Flash Drive	Canon VIXIA HF11 MSRP: \$1,199* SKU 8917069	2.7 inches	12X; 200X	LP/SP/XP+/ FXP/MXP	SD/SDHC	2.76MP	N/A

<sup>\*</sup>Prices listed in this issue are for general reference and may vary from retailer pricing.

# Digital Imaging Glossary



re you confused about what the lingo on camera boxes means? Use this glossary to help decode the world of digital imaging.

aperture—An iris-like diaphragm opening that can expand and contract the lens to let you control the amount of light that passes through it, thus affecting the exposure. The term "f-stop" is used interchangeably with aperture.

burst mode—Where the camera can take several shots consecutively after pressing the shutter once, usually in one second.

CCD—A charge-coupled device is the camera's image-sensing component. It converts light into energy that can be stored as digital data on your camera.

depth of field—The area that is in focus in front of and beyond the subject of your photo.

digital zoom-Magnifies an image digitally by cropping it and filling in the rest with interpolated pixels, thus degrading the quality. Even if the numbers are impressive, never choose a camera based on digital zoom.

f-stop—See aperture. Smaller f-stop numbers mean a wider lens opening; larger f-stop numbers mean a narrower lens opening.

ISO-For digital cameras, the ISO setting measures the sensitivity to light (similar to how it does with film). Digital camera ISO settings, such as 200, 400, etc., should capture photos as if one were using film with such a speed. Lower ISO settings mean you need more light and vice versa.

LCD—The screen on the back of the camera that lets you see a live-action view of your subject or your photo after you've taken it.

lens—The apparatus on the front of the camera that gathers and directs light toward the imaging device. In a digital camera, the lens probably has both an optical and digital zoom.

megapixel—Approximately 1 million pixels. The higher the megapixel count, the higher the resolution and the more you can crop, which means (in general) better-quality photos.

memory card—Because digital cameras have very little onboard memory, they need flash memory cards to store more than a dozen or so images. The type of memory card you need depends on the make and model of your camera. Some of the most popular memory cards are Secure Digital, MultiMediaCard, Compact Flash, and Sony Memory Sticks. In general, memory cards are quite small.

noise—The small statistical variations among pixels that lead to (usually) minor distortions of color in a photo.

optical zoom—The camera's mechanical ability to move the lens physically closer to your subject. With optical zoom, the higher the number (such as 5X or 10X), the better. When choosing a camera, always consider the optical zoom, not the digital zoom. Digital zoom artificially adds pixels.



resolution—The number of pixels in an image. The higher the resolution, the more detail and quality in a photo. Resolution is measured in a proportion (such as 2,272 x 1,704).

shutter—A mechanism that opens and closes to allow light to pass through the lens. You can usually control the camera's shutter speed.

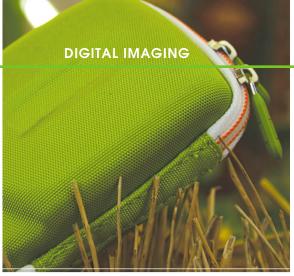
shutter speed—The length of time a camera's shutter is open to let light through the lens to hit the sensor, which records the image. This is expressed in fractions of a second: For instance, a shutter speed of 1/250 means that the shutter speed is 1/250th of a second.

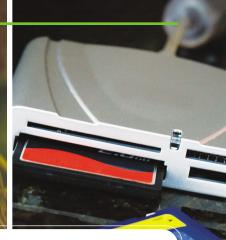
viewfinder—The small opening in the camera that the user looks through to frame a shot. Some digital cameras don't have a viewfinder and rely on using an LCD to frame the shot.

white balance—Light levels are adjusted electronically to ensure whites in a certain environment are pure, leading to more lifelike colors. White balance can usually be manually adjusted, too. FG









## Accessories & Services

rices for digital camcorders and cameras continue to fall as video and picture quality improve, which is especially good news for first-time buyers or those looking to upgrade. Pairing your new camcorder or camera with the right products will bring you better photography results. Here are some must-have accessories you should consider to get the most out of your digital imaging device.

#### **UV FILTER**

- Protect digital camcorder and D-SLR lenses from dust, dirt, fingerprints, and scratches
- Get clearer, more detailed video or photographs in bright conditions

#### TRIPOD

- Larger tripods can serve as an easy way to ensure steady video footage
- Pan large areas while recording video in one, smooth motion
- With a tripod and a timer, you can get a picture of the entire group without someone needing to man the camera
- Steady your hand for close-up or distance shots to avoid photo blurring

#### SPARE BATTERIES/CHARGER

- Be sure you're never caught without the power to capture the perfect moment
- Proprietary batteries or AAs, it's a good idea to keep at least one fully charged spare or set in your camera bag
- An additional battery charger will give you the flexibility to power up your camera batteries anywhere you're headed, even when you travel

#### **EXTRA MEDIA**

- Keep spare memory cards on hand to ensure that you have plenty of room to snap away and never miss a moment
- Consider having several smaller media cards instead of one larger card; if something goes wrong with one, you'll still have a backup
- For your digital camcorder, keep more recording media in your bag than you think you'll need, just in case

#### ADDITIONAL LENSES/CONVERTER LENSES

- Extra lenses for D-SLRs and converter lenses for digital camcorders can enhance your results by extending your field of view, reducing glare, and more
- Telephoto lenses will enable you to zoom in from far away; wide-angle lenses will give you the ability to get a full view even if you're close to the subject; and macro lenses will let you achieve up-close detailed shots of your photo subject

#### EXTERNAL FLASH

- Light up your subjects from greater distances
- Better control lighting conditions when shooting by directing the angle of the flash

#### REMOTE SWITCH

- Take pictures without having to touch the camera to reduce camera shake
- Longer cable lets you snap shots without being tied to the camera
- May enable user to lock shutter for longer exposure times

#### DIGITAL IMAGING SERVICES

Once you've set your sights on the camera or camcorder you want, consider taking advantage of the digital imaging services offered by your local CE retailer. Not only can you protect your imaging investment, but you can also discover photography skills to make your photos and videos picture perfect.

- D-SLR Or Camcorder Service Plan
- **D-SLR Training Course**
- Camcorder Training Course



ooking for an all-in-one printer with a low cost of ownership that can create quality prints? Kodak has been thinking of you. Consider the Kodak ESP 7 Allin-One printer (\$199.99; www.kodak.com).

With Wi-Fi and Ethernet networking capabilities, you can connect every computer in the house to the ESP 7. There's no need to have a printer for each computer setup-everyone can print documents and photos to the same device over a wireless home network.

The ESP 7 can copy, scan, and print your photos and documents, and with a 100-sheet paper tray and 40-sheet photo tray, you won't have to wander through your house to replenish its paper very often.

#### It's All About The Ink

If you're a young mom or dad with an eye for documenting virtually every moment of Junior's life, don't just settle for a photo printer. If you depend upon a photo printer that only has one dedicated function, you'll need to enlist a second printer for document scanning and printing purposes. Additionally, photo ink alone can be quite expensive, and purchasing ink cartridges for another printer will surely make any budgetconscious parent cringe.

Purchasing black and color ink cartridges can sometimes cost almost as much as a brand new low-end printer-commonly between \$40 and \$80.

printhead is a part of the printer itself instead of the replacement ink cartridges. The result? You no longer need to pay for an expensive piece of



Kodak's reduced cartridge costs are possible in part because the printhead is a part of the printer itself instead of the replacment ink cartridges.

Kodak's ink cartridges, by contrast, cost very little-\$9.99 for a black cartridge and \$14.99 for a color cartridge—resulting in documents and photos that will cost you much less per print. Kodak's reduced cartridge costs are possible in part because the

## **Options**

There are other printer options in the All-in-One Kodak ESP line. The ESP 3 (\$129.99) sports many of the features of its bigger brothers, including the ability to print 4x6 photos and scan, copy, or print documents up to 8.5x11. If you want a 3-inch LCD screen and an easy-toaccess media card reader, check out the ESP 5 (\$149.99). And if you want all the capabilities of the ESP 7 but need a fax machine and auto document feeder, check out the ESP 9 (\$299.99).

technology every time you need a new ink cartridge.

Not only are Kodak ink cartridges inexpensive, they offer quality. Their ink is pigment-based, not dye, which means that your photos and documents will last a long time—over 120 years, according to Wilhelm Imaging Research so you'll be able to show your future grandchildren crisp, colorful photos of your kids' first birthday parties.

Plus, when you use Kodak ink and Kodak instant dry photo paper with your ESP 7, you don't have to gingerly handle your photos until they dry. Gone are the days where you have to make reprints due to fingerprint smudges.

For families looking for ways to save money on everything they print, the ESP 7 and Kodak ink is an easy, surefire way to stick to a budget.



otebooks are intended to be a portable companion for all of your programs and multimedia, and they can also be used to digi-

tally communicate at work, throughout the country, and across the world. We all want a notebook that matches our particular lifestyle requirements, whether we're on the road conducting business, studying diligently at a coffeehouse, or gaming until the early morning hours.

That being said, there are certainly some significant differences between the primary notebook types you see at your local CE retailer. Before we cover some specifications, you'll want to take note of currently available laptop models: entertainment, Internet and email, gaming, small business, UMPCs (Ultra-Mobile PCs), and netbooks. Keep reading for a breakdown of each notebook type and its benefits.

#### **Entertainment**

If you're a music and movie fanatic, or you simply want every form of media on your laptop, you'll probably like most of the features found in an entertainment-based notebook. Look for a high-end graphics card, a high-capacity hard drive (more than 250GB), at least 3GB of RAM, and a DVD±R/ RW burner. HDMI ports for all-digital audio and high-definition video are becoming more common, as well. Connecting your entertainment laptop to an HDTV via an HDMI cable will give you the opportunity to view your stored media in high definition.

#### Internet & Email

A laptop designed for Web browsing and messaging will be rather basic in some ways. It will undoubtedly include a built-in high-speed wireless LAN (localarea network) for Web-surfing convenience. Ideally, these models will also feature a powerful battery to sustain your mobile computing needs; this way, you can complete projects that require word processing without worrying that the battery will fail. If your computing lifestyle is all about the basics, then this notebook is a sensible choice.

#### Gaming

Processing speed, graphics cards, and functionality are important characteristics of any gaming laptop. Most standard gaming notebooks will feature a dualcore processor so your system can keep up with your quick fingers and demanding game software. Speaking of fast moves, on some notebooks you'll find built-in multimedia buttons (such as a 10-key number pad) for rapid gaming. You'll also want a high-quality graphics card with discrete video memory, so you can truly feel as though you're

experiencing every aspect of an intense FPS (first-person shooter) game.

#### **Small Business**

Business owners know what they need to keep their books in order and to stay on top of a packed schedule. Some of the latest business-friendly laptops have preinstalled professional software for word processing, spreadsheets, and presentations. Also, built-in protection measures, such as fingerprint readers, will help safeguard your accounts.

#### **UMPC**

UMPCs are principally known for a small screen size and have features for anyone who's constantly out and about. You'll notice built-in Web cams, Bluetooth compatibility, and display sizes between 11 and 14 inches on many models.

#### Netbook

A netbook is truly for the frequent Web surfer. These are some of the smallest "notebooks" and the most trimmeddown of the lot. Netbooks are comparable to UMPCs in the sense that they're both highly portable, but UMPCs are slightly heavier. If you frequently access social networking sites, check email, and video chat while on the go, a netbook will suit your needs. FG

BY JOANNA SAFFORD

# Graphically Speaking

## What To Look For When **Purchasing A Video Card**



computer gamer must have one to play titles at the highest settings; a video editor needs one to quickly render effects; and a media-

center PC owner wants one to play HD content from his PC onto his home theater. A video card is just the trick for anyone who wants to improve her PC's ability to process high-end graphics and display content at high resolutions. To help you pick a video card that suits your upgrade needs, we'll explain the specifications you should look for.

#### It's A PCI-E World

The technology surrounding graphics cards changes fast, but one thing that hasn't changed recently is the popularity of the PCI-E (Peripheral Component

### Integrated vs. Dedicated

**S** ome desktop computers may not have a graphics card at all. Instead, the computer's motherboard has a chip that performs the video processing. The biggest downside to integrated graphics is that the video chip shares your computer's memory, otherwise known as RAM, which degrades the PC's overall and video processing performance.

Interconnect Express) x16 interface, which is the connector type found on nearly all graphics cards manufactured within the past two

years. If you've got a computer that reguires an older AGP- or PCI-based graphics card, you may want to upgrade your PC.

#### Video Memory

Similar to your computer, a graphics card comes with its own memory, so it can store video data and effectively render images at millions of pixels per second. The more memory the video card offers, the higher the video resolution your PC can handle. That being said, if you don't play video games at the highest settings or render video at HD quality, a graphics card with 512MB (or less) of video memory will be sufficient. Graphics cards also feature an internal processor. Look for a card with a core clock with better than 500MHz clock speed for best results.

#### **Teamwork**

If your computer supports Nvidia's SLI or ATI's CrossFireX, which allow you to use two (or more) identical Nvidia- or ATI-based graphics cards as one videocrunching device, you can install two cards and further improve the graphics performance on your PC. Additionally, some video cards feature two GPUs (graphics processor units)—think of it



as a dual-core processor for video—to deliver dual GPU performance from a single video card. The most recently released graphics cards are also designed to perform HD video decoding, taking some calculation duties away from the processor. If you want the most realistic color and video quality, look for a graphics card that supports HD video playback.

#### Video Output

Nearly all current graphics cards offer two dual-link DVI (Digital Visual Interface) outputs, which let you hook up two monitors and span your Windows Desktop across both screens. The digital DVI output is superior to the analog, VGA (video graphics array) interface found on older computers and monitors.

If you're looking to quickly hook up your PC to an HDTV, you should look for a graphics card with an HDMI output, which provides the DVI's all-digital, uncompressed video quality, as well as the ability to carry digital audio. High-end graphics cards also support HD resolutions, so your PC will deliver the same quality as your other HD devices.

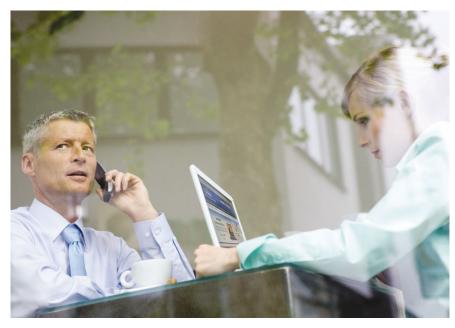
BY NATHAN LAKE



## What You See On The Shelves Is Just The Tip Of The Iceberg

est Buy carries so many products that business owners can find a lot of the hardware and software they need just by walking into the store, but what about specialty needs such as multiline phones, servers, and robust printers that serve as the lifeblood of today's businesses? For that you need Best Buy For Business, or BBFB, which offers hundreds of thousands of products and services that the retail stores simply don't have room to carry, all aimed at small and medium-sized businesses, as well as government agencies and educational institutions.

You can browse most of these products at www.bestbuyforbusiness.com, but the solutions don't stop there. "Because of our strong relationships with our vendors, we can get almost anything that a business customer might need whether it's on the Web site or not," says In-Store BBFB Liaison Bianca Roland. For example, if you need an LCD for signage at your business, you can walk into the store and buy a consumer model that will likely break because of the demands put on it, or you can go through BBFB and get a



model designed specifically for that task, which may even come with an extended onsite warranty that you'd never see on a consumer display.

If you have a Best Buy Reward Zone card, all purchases made through BBFB qualify for points and toward eligibility for Premier Silver membership status when you spend \$2,500 in a single year. This can add up to big savings via rebate coupons that accumulate as you bring your business up-to-speed. The service also supports business-friendly credit terms. "One of the major benefits of BBFB," says Roland, "is that we can process purchase orders and Net 30 transactions, which are not available in-store."

BBFB also offers extensive support options. In-store support is available for most products and services, and many products are eligible for installation or extended warranty coverage provided by Geek Squad. "It is suggested that when a customer finds the need for service that he call 888-BEST-BUY, and the service support team there will help to find the best channel for service for their particular product," says Roland. 📧

## **Need POS?**

YOU KNOW YOUR BUSINESS IS GROWING when you need a POS (point-of-sale) system, and Best Buy For Business has you covered. Whether you need software or hardware, Best Buy For Business can answer all your questions and supply everything you need to get started. Once you've selected a POS system, you can have Geek Squad install part of it or the entire system, depending on your needs.

BY TRACY BAKER

## Wired vs. Wireless

## **Choosing A Streaming Foundation**



ou have video, music. and photo slideshows on a computer, but what you really want is to enjoy them in your home theater.

Unless you want to move your computer into your living room, you're talking about streaming. Put simply, streaming means playing music or video on a TV or other device as it continuously downloads from a computer over a network. However, not all networks are created equal for this demanding task.

#### Wired

A wired network is your best bet for consistent streaming. A gigabit (1Gbps) Ethernet network will be more than fast enough for even high-definition video. Wired networks are reliable, easier to secure than a wireless network, and potentially inexpensive.

On the downside, an Ethernet network means you'll have to route a high-quality cable from your computer to the receiving device. And unless you tuck the cable into a baseboard, under the rug, or through a conduit or raceway, you're just asking for someone to trip over it.

As an alternative, you could take advantage of the wiring already built into your home. A power line network lets you send high-speed audio, video, and data through the same wires that carry electricity to all of your appliances. On the other hand, non-Windows device support may be spotty, and devices such as air conditioners and vacuums may cause interference.



#### Wireless

A wireless network is easy to set up, as you don't have to route cables through walls, floors, or ceilings. And adding another wireless device is as easy as installing an adapter.

Current 802.11g or draft 802.11n wireless equipment is fast enough to stream audio and some types of video. However, the primary problem is that wireless performance isn't as consistent as streaming demands. Common household devices, such as microwaves and baby monitors, can slow down data traffic on wireless networks (although draft 802.11n devices are a little better at resisting such interference).

Many wireless routers are backwardcompatible with earlier technologies. However, if someone connects a slow 11Mbps 802.11b device to the network,

the router may drop the speed of the entire network to accommodate the legacy device.

Finally, any wireless network needs to be securely encrypted to protect your personal data from hackers, and that takes processing power on both the sending and receiving ends. If you use strong encryption, your streaming video might stutter. If you use weaker encryption, your network won't be as tough to hack.

The verdict for wireless at this stage: It's fine for audio but less so for video. You can get decent results with low-resolution video clips and even some nicerlooking stuff when conditions are right. Once you step up to higher-quality content, however, the frustrations may outweigh your enjoyment. FG

BY MARTY SEMS

## Send In The Geeks!

## Say Goodbye To Slow Computers

#### Geek Sauad PC Optimization, Explained

Whether your computer is fresh out of the box or has been used for a long time, there's a good chance it isn't running at peak performance. In order to protect your privacy and avoid PC slowdowns, everything from needless software to malware, such as viruses and spyware, needs to be cleaned out on a regular basis. However, tracking these nuisances down and knowing what you should keep vs. what you should delete can quickly become a nightmare.

Enter Geek Squad. Whether you opt for its in-home, in-store, or online service, Geek Squad Agents can optimize your PC so it boots faster, runs better, and suffers from fewer errors and crashes. Here's an overview of the basic PC adjustments Geek Squad can perform and why they are so vital.

#### Remove Unnecessary **Startup Programs**

If programs are flagged to open and run in the background as soon as Windows loads, they lengthen boot times and slow down your system's overall performance. Windows does include tools to help you remove startup items, but there are several caveats. These simple utilities don't necessarily show you everything that loads when your computer starts up, and they don't provide enough information to let you know which programs are necessary and which can safely be deleted. With the assistance of Geek Squad Agents, your PC's needless startup programs will be identified and then safely removed.

#### **Fight Malware**

Nothing drags down performance like malware. Viruses can take over your computer to send unsolicited emails or destroy your PC's data, and spyware monitors your actions, leading to identity theft and other security breaches. One of the most important components to some of Geek Squad's security services is antivirus and antispyware installation and configuration that prevents existing and new malware from infecting your computer.

#### Take Out The Trash

As you use your computer, it creates loads of temporary files that eat up hard drive space and serve no lasting purpose. As with startup programs, it's difficult to tell which files are safe to delete and which are needed, so let a Geek Squad Agent take the guesswork out of this tune-up task.

#### **Keep It Updated**

New security holes for Windows and other software crop up regularly, and new antivirus and anti-malware definitions are released nearly every day. It is imperative to keep your OS and anti-malware software up-to-date. Many Geek Squad optimization services can patch your software programs with new updates so that you can keep your data and identity safe with peace of mind.

BY TRACY BAKER

## Which Computer Service Is Right For You?

Geek Squad offers a variety of PC packages that include optimization services. Here's a breakdown of some of them:

#### Standard Security & Performance

\$229.99 (in-home) \$129.99 (in-store)

What's included: Antivirus and antispyware software is installed, and all performance tweaks discussed in this article are performed.

#### Computer **Optimization**

\$129.99 (in-home) \$39.99 (in-store)

What's included: Temp file cleaning, startup program removal, and software updates.

#### Standard Gamer's **Optimization**

\$69.99 (in-store only)

What's included: Install one program, temp file cleaning, startup program removal, software updates, and optimize requested game settings.

#### **Computer Checkup**

\$99.99 (in-store only)

What's included: Troubleshoot problems, startup program removal, software updates, and OS critical updates.

# THINGS TO KNOW

On-The-Go Computing

#### **External Hard Drives**

## What is an external hard drive?

It's the same type of spinning, magnetic disk storage device used in most computers and laptops, but it's in a case and connects to a PC via a USB or other cable.

## What would I use an external drive for?

Backups are the primary focus of most external drives. However, you also can use portable drives to transfer huge collections of photos and other files.

## What type of cable should an external drive have?

USB 2.0 will make the drive compatible with most computers. An eSATA connection can speed up performance.

## Are all external hard drives portable?

No. External drives based on 2.5-inch notebook drives are tough enough for portable use, but larger, more fragile 3.5-inch externals are best left on a computer desk.

#### **Netbooks & Ultraportables**

What's the difference between a netbook and an ultraportable?

Both types of laptops are designed for supreme portability, but a netbook will actually be a bit smaller than an ultraportable, and an ultraportable will be more powerful.

Can you do anything with a netbook other than browse the Internet and check your email?

A netbook can do most of what a laptop can do, with some limitations (including the lack of an optical drive).

Is an ultraportable the same thing as a UMPC (Ultra-Mobile PC)?

Essentially they're the same. However, "UMPC" is actually a proprietary name that Microsoft created. "Ultraportable" is the more general term.

Just how light *are* netbooks and ultraportables?

Netbooks are usually about 3 pounds or less. Expect an ultraportable to weigh between 3 and 5 pounds.









#### Portable Mice & Keyboards

My notebook has a touchpad and keyboard. Why would I want a mobile mouse and keyboard?

Many find mobile mice provide faster, easier, and better navigation than a notebook's touchpad. Many users also prefer typing on a full-sized keyboard vs. notebook keys.

### How much does a mobile mouse cost?

Mobile mice start at about \$15 and extend past \$100. Most models, however, fall within a price range of between \$30 and \$60.

## What traits typify a mobile mouse vs. desktop mouse?

Mobile mice are typically smaller, making them easier to transport. More mice makers, however, are releasing full-sized mobile mice that use improved tracking technologies for smoother navigation on more surface types.

## How do mobile mice and keyboards connect to a laptop?

Wired models connect via USB ports, with some mice even sporting retractable USB cords. In addition to Bluetooth, wireless mice may use infrared or radio-frequency technologies in which the mouse communicates with a USB receiver connected to the notebook.

## Where is the USB receiver stored during travel?

Some mice USB receivers are only dime-sized and can safely remain in a notebook's USB port during transport. Other mice have a slot underneath the mouse for storage.

#### **Travel Adapters**



#### Why do I need a travel adapter for my electronics?

Because electrical outlets and voltages in other parts of the world are not the same as those in the United States, you need to have a travel adapter in order to safely charge your electronics in other countries.



#### Do I need a special travel adapter for certain devices?

Yes. There are travel adapters that are specially designed to charge consumer-electronic devices, such as mobile phones and personal media players.



#### Where can I use travel adapters?

In addition to models that enable you to use electronics in foreign countries, there are a variety of travel adapters available that make it possible to use and charge electronics in places such as airplanes and cars.



#### Are travel adapters easy to pack?

All travel adapters are designed to be portable, but some travel adapters have additional portability features, such as extra compact bodies. Some travel kits include a travel bag that lets you keep all your travel accessories in a single place.



## How will I know if my travel adapter is acceptable for the country I am traveling to?

Check the travel adapter's packaging or users manual to see which countries it is designed for.









# Glossary Of Computing Terms

hopping for a computer can be intimidating, especially with all of the complex terminology. Here, we explain some common computer jargon.

Bluetooth—A short-range wireless standard that connects devices, such as computers, printers, PDAs, and digital cameras. It allows these devices and their users to communicate with one another.

broadband—Network connections that transmit high-speed Internet access. Cable companies can offer network speeds up to 8 to 11Mbps (megabits per second), whereas phone companies offer DSL (Digital Subscriber Line), which can support maximum speeds of 3 to 5Mbps. Some power companies are also exploring the possibility of offering highspeed Internet access to their customers.

CRT (cathode-ray tube)—An old analog display technology for TVs and computer monitors. It features an electron gun illuminating phosphor dots that line the inside of a glass tube. When the phosphors are lit, they display on-screen images. CRTs consume a great deal of power and are heavy and bulky. Although many CRTs support digital signals, they degrade when converted to analog.

dual-core processor—This integrated circuit, which controls the computer,

features two processors, each with its own cache, on a single die or chassis. In a dual-core configuration, the operating system has two processors to handle instructions, speeding up the computer and its ability to multitask.

**Ethernet**—A widely used LAN protocol in which computers and networks are physically linked.

firewall—Hardware or software that limits access by a network or another outside source to your computer; it also may limit your computer's access to the network. These security measures are designed to protect your computer from outsiders who'd like to exploit it in some way. By the same token, firewalls may prevent infected files on your computer from accessing the larger network and spreading the problem to other users.

LAN (local-area network)—A group of computers that are physically connected by wires so they can communicate with one another and share information.

LCD (liquid-crystal display)—This digital display technology sandwiches liquid crystals between thin sheets of glass. The crystals twist and untwist to allow and block light from a backlight, forming the images you see. LCDs are thinner, lighter, and consume less power than CRTs. Initially used mostly in notebook PCs, you'll now find LCD TVs and computer

monitors, as well as LCDs on digital cameras, cell phones, portable DVD players, and PDAs, among others.

office suite—Productivity software, such as Microsoft Office, StarOffice, and Open Office, that often includes word processing, spreadsheet, presentation, database, and financial components.

operating system—The software, such as Windows XP, Windows Vista, or Mac OS X, that controls a computer and its peripherals and serves as the primary interface for the users.

processor—Also known as a microprocessor or the CPU (central processing unit), this integrated circuit controls the computer.

**RAM**—Random-access memory is a standard type of memory that's read from and written to by the CPU and hardware.

upgradeable—This term refers to the ability to add or swap out hardware to boost a computer's performance, increase its speed, or replace a defective or obsolete device or component. For instance, you may add more memory; replace an old CRT with a widescreen LCD; or swap out an older graphics card for a newer one that features an ATSC TV tuner so you can watch digital TV on your computer. Look for a computer with expansion slots or empty bays.



## All-In-One Printer

## 3-In-1 Inkjet With Low-Cost Ink



#### Kodak ESP 5 Multifunction Printer/ Copier/Scanner

MSRP: \$149.99 SKU: 8842595 www.kodak.com

#### **Ouick Overview**

Swith to the KODAK ESP 5 All-in-One Printer and save on average \$110 a year on ink.1 A black ink cartridge is just \$9.99 MSRP, and a 5-ink color cartridge is just \$14.99 MSPR—that's the lowest total ink replacement cost in the industry.<sup>2</sup> The KODAK ESP 5 All-in-One Printer features a large 3-inch color LCD screen, plus memory card and USB slots, so you can view, edit, and print photos with or without a computer. Now you can print, copy, and scan even more for less.

#### **Perfect For**

Frequent printers who are frustrated with the high cost of inkjet cartridges.

#### **Outstanding Benefits**

- · Convenient 2-cartridge, 6-ink system
- Print KODAK lab-quality  $4 \times 6$ -inch (10  $\times$  15cm) borderless photos that last a lifetime in as little as 30 seconds<sup>3</sup>
- Print documents up to 30 pages per minute in black and 29 pages per minute in color<sup>3</sup>
- Large 3-inch (7.6cm) color LCD screen plus memory card and USB slots to view, crop, and print photos without a computer
- Intelligent paper sensor adjusts settings based on paper type
- Included KODAK EASYSHARE Software for image enhancement and editing<sup>3</sup>

#### **Coolest Feature**

Low-cost ink means no more sticker shock when it's time to replace ink cartridges.

1) Results based on average annual print volumes compared to leading consumer inkjet printers. Actual results may vary. For more information visit kodak.com/go/inkdata. 2) As compared to leading consumer inkjet printers total ink load replacement costs using manufacturer recommended ink cartridges; excludes single cartridge printers. Based on IDC cartridge pricing survey data obtained January 2008. 3) See kodak.com for details



#### **ALIENWARE**

## Desktop

## **Optimized For Gaming**



#### Alienware Aurora

MSRP: \$1,699.99

SKU: 9058342

www.alienware.com

#### **Quick Overview**

This custom-built desktop PC blends Alienware's unique design with cutting-edge technology, including an AMD 2.2GHz quad-core processor and two ATI Radeon HD 4850 graphics cards. Besides hardware ideal for gaming, video editing, and other intensive tasks, the Aurora also includes a 500GB hard drive and a DVD±RW/CD-RW drive to provide multimedia playback capabilities, as well as the storage capacity needed for photos, images, and videos.

#### **Perfect For**

Computer enthusiasts and gamers looking for a PC that offers dazzling performance and design.

#### **Outstanding Benefits**

- 2.2GHz AMD™ Phenom™ X4 quad-core processor
- 500GB hard drive; 4GB DDR2-800MHz SDRAM
- · Multiformat DVD±RW/CD-RW drive with double-layer
- Dual ATI™ Radeon HD 4850 graphics cards
- Alienware AlienFX system lighting
- · Ability to expand system via free slots on motherboard for add-on cards and memory
- · Advanced airflow and component cooling for internal hardware
- · Windows Vista (64-bit) Home Premium With Service Pack 1

#### **Coolest Feature**

Dual ATI Radeon HD 4850 graphics cards that work together to deliver the best possible gaming experience.



## Nvidia Graphics Cards From BFG



BFG's graphics cards all support Nvidia's PhysX technology, which provides gamers with a more realistic gaming experience. Nvidia's CUDA (Compute Unified Device Architecture) also lets your PC apply the raw power of the GPU to non-graphical tasks, such as video and audio encoding.

Product Name SKU	BFG GeForce 9800 GT OC 1GB 9175705	BFG GeForce 9600 GT OC 512MB 8719041	BFG GeForce 9500 GT 1GB 8983745	BFG GeForce 9400 GT 512MB 8990425	BFG GeForce 8400 GS 512MB 8990407
MSRP	\$189.99*	\$169.99*	\$139.99*	\$99.99*	\$69.99*
Gaming/Video Performance	Best	Better	Good	Good	Capable
Overclocked	Yes	Yes	No	No	No
Core Clock	625MHz	675MHz	550MHz	550MHz	567MHz
Shader Clock	1,566MHz	1,700MHz	1,400MHz	1,400MHz	1,400MHz
Stream Processors	112	64	32	16	16
Video Memory	1GB GDDR3	512MB GDDR3	1GB DDR2	512MB DDR2	512MB DDR2
Memory Data Rate	1,800MHz	1,800MHz	666MHz	800MHz	800MHz
Memory Interface	256-bit	256-bit	128-bit	128-bit	64-bit
Memory Bandwidth	57.6GBps	57.6GBps	10.7GBps	12.8GBps	6.4GBps
Bus Type	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0
Display Connectors	2 Dual-Link DVI-I, HDTV + TV Out	2 Dual-Link DVI-I, HDTV + TV Out	2 Dual-Link DVI-I, HDTV + TV Out	Dual-Link DVI-I, VGA, HDTV + TV Out	Dual-Link DVI-I, VGA, TV Out
Multiple Monitors	Yes	Yes	Yes	Yes	Yes
HDMI/HDCP Capable	Yes	Yes	Yes	Yes	No/Yes
Nvidia SLI Support	Yes, 2-Way	Yes, 2-Way	Yes, 2-Way	No	No
Special Features	PhysX, CUDA	PhysX, CUDA	PhysX, CUDA	PhysX, CUDA	PhysX, CUDA

<sup>\*</sup> Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which Notebook Computer Is Best For You?

A notebook computer is a pretty big purchase for most people, and it's usually a bit overwhelming, too. This chart compares the features and specs from several different types of notebook models.

		Operating system	Processor	Hard drive size; RAM	Screen size	Dimensions; Weight	Optical drives; Media card reader
	What It Means	The software (usually Windows or Mac OS X) that controls your computer	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Mem- ory that's read and written to	The diagonal measurement of the note- book's screen	Height x width x depth; How much the lap- top weighs	Drives that can read and write discs; Slots that read media cards without a sep- arate peripheral
	<b>Dell I15-156B</b> MSRP: \$499.99* SKU 9149557	Windows Vista Home Premium	2.16GHz Intel Pentium Dual-Core	160GB; 3GB	15.6 inches	1.5x14.7x9.6 inches; 6.5 pounds	Double-layer DVD±RW/ CD-RW; Yes
	<b>Gateway MD7801u</b> MSRP: \$799.99* SKU 9172539	Windows Vista Home Premium	2GHz Intel Core 2 Duo T6400	500GB; 4GB	15.6 inches	1.7x15.2x 10.4 inches; 7.7 pounds	Double-layer DVD±RW/ CD-RW; Yes
	Sony Vaio VGN-CS215J/W MSRP: \$799.99* SKU 9153195	Windows Vista Home Premium	2GHz Intel Core 2 Duo Mobile	250GB; 4GB	14.1 inches	1.6x13.2x9.6 inches; 5.7 pounds	Double-layer DVD±RW/ CD-RW; Yes
	HP 6730s MSRP: \$899.99* SKU 9059243	Windows Vista Business	1.8GHz Intel Core 2 Duo Mobile	250GB; 3GB	15.4 inches	1.3x14.1x 10.5 inches; 5.8 pounds	Double-layer DVD±RW/ CD-RW; Yes
	<b>Asus G50Vt-X5</b> MSRP: \$999.99* SKU 9173262	Windows Vista Home Premium	2.13GHz Intel Core 2 Duo Mobile	320GB; 4GB	15.6 inches	1.6x14.8x 10.4 inches; 7.7 pounds	Double-layer DVD±RW/ CD-RW; Yes
	HP Pavilion dv3510nr MSRP: \$1,199.99* SKU 9027714	Windows Vista Home Premium	2GHz Intel Core 2 Duo	320GB; 4GB	13.3 inches	1.4x12.6x9 inches; 4.6 pounds	Double-layer DVD±RW/ CD-RW; Yes
	Toshiba Satellite E105-S1402 MSRP: \$1,199.99* SKU 9022979	Windows Vista Home Premium	2.26GHz Intel Core 2 Duo	320GB; 4GB	14.1 inches	1.2x13.4x9.7 inches; 5 pounds	Double-layer DVD±RW/ CD-RW; Yes
AMANA TOA	Apple MacBook MB467LL/A MSRP: \$1,599* SKU 9107432	Mac OS X 10.5 Leopard	2.4GHz Intel Core 2 Duo	250GB; 2GB	13.3 inches	0.95x12.78x 8.94 inches; 4.5 pounds	Double-layer DVD±RW/ CD-RW; No

 $<sup>^{*}</sup>$ Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which Desktop PC Is Right For You?

/ hen you shop for a desktop PC, you'll see lots of similar deals. The comparison chart below shows how subtle—yet important—the differences can be. If you need further help discerning the differences between these desktops, we suggest you consult an associate at your local CE retailer.

		Processor	Hard drive size; RAM	Optical drives	Operating system	Graphics card	Ports
	What It Means	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Mem- ory that's read and written to	Drives that can read and write CD-Rs, DVD- RWs, or HD discs	The software (usually Windows or Mac OS X) that controls your computer	Controls the quality of your video and images	Sockets that give your computer access to differ- ent peripherals
oor Tree	Acer AX1700- U3700A MSRP: \$479.99* SKU 9174458	2.4GHz Intel Pentium Dual-Core	640GB; 4GB	Double-layer DVD±RW/ CD-RW	Windows Vista Home Premium	Nvidia GeForce G100	9 USB
6	<b>Dell Hybrid-118B</b> MSRP: \$749.99* SKU 8977823	2.16GHz Intel Core Duo	250GB; 3GB	Double-layer DVD±RW/ CD-RW	Windows Vista Home Premium	Intel Graphics Media Accelerator X3100	5 USB; 1 FireWire
	<b>Dell SXPS-122B</b> MSRP: \$999.99* SKU 9180423	2.66GHz Intel Core i7	640GB; 4GB	DVD±RW/ CD-RW	Windows Vista Home Premium	ATI Radeon HD 4850	8 USB; 2 FireWire
	HP Pavilion Elite m9500y MSRP: \$1,039.99* SKU 9174289	2.4GHz AMD Phenom X4	750GB; 8GB	Double-layer DVD±RW/ CD-RW	Windows Vista Home Premium	Nvidia GeForce 9500 GS	6 USB; 2 FireWire
N.X.	Gateway FX6800-01e MSRP: \$1,249.99* SKU 9081325	2.66GHz Intel Core i7	750GB; 3GB	Double-layer DVD±RW/ CD-RW	Windows Vista Home Premium	ATI Radeon HD 4850	10 USB; 2 FireWire
	HP Touchsmart IQ526 MSRP: \$1,499.99* SKU 9181743	2.2GHz Intel Core2 Duo	640GB; 4GB	Double-layer DVD±RW/C D-RW	Windows Vista Home Premium	Nvidia GeForce 9300 M GS HD	5 USB; 1 FireWire
	Alienware Aurora MSRP: \$1,699.99* SKU 9058342	2.2GHz AMD Phenom X4	500GB; 4GB	Double-layer DVD±RW/ CD-RW	Windows Vista Home Premium	Dual ATI Radeon HD 4850	8 USB; 2 FireWire
c .	<b>Apple MB325LL/A</b> MSRP: \$1,799* SKU 8844726	2.8GHz Intel Core 2 Duo	320GB; 2GB	Double-layer DVD±RW/ CD-RW	Mac OS X 10.5 Leopard	ATI Radeon HD 2600 Pro	5 USB; 2 FireWire

<sup>\*</sup>Prices listed in this issue are for general reference and may vary from retailer pricing.

## First Glimpse

# Software Listings Get More Out Of Your PC

omputers can be used to create greeting cards, play games, balance your checkbook, and more. The thing is, most of these functions aren't available straight out of the box. To fully harness your computer's potential, you'll need to buy software. Here are some options.

#### **Art/Illustration/Graphics**



Corel Paint Shop Pro Photo X2 Ultimate \$99.99\*

www.corel.com

Professional photo-editing software in an easyto-use package. The Ultimate version also comes with a bonus pack loaded with free extras.



Adobe Photoshop Elements 7

\$99.99\*

www.adobe.com

Photoshop Elements 7 from Adobe makes it easy to fix red-eye, combine photos for the perfect group shot, or tweak the color balance to make your photos look their best.



**Roxio Creator 2009** \$99.99\*

www.roxio.com

your home movies, and organize your mu-

With Roxio's Creator 2009, preserving your memories has become simpler than ever. You can now easily edit and touch up your photos, create unique DVDs using

sic collection.



Broderbund The Print Shop 23 Deluxe \$49.99\*

www.broderbund.com

Easily create banners, business cards, letterheads, calendars, photo greeting cards, invitations, and more right from your computer with The Print Shop 23 Deluxe from Broderbund.

#### Audio/Video



Pinnacle Studio Ultimate Version 12 \$129.99\*

www.pinnaclesys.com

Use automated and powerful video- and audio-editing tools to create and share your home movies.



Apple iLife '09

\$79\*

www.apple.com

Use Apple's popular iPhoto, iMovie, iWeb, GarageBand, and iDVD on your Mac to organize photos, create a Web site, record music, or edit movies.

#### Magix Music Maker 14



\$59.99\*

www.magix.com

Produce your own music using more than 1,500 sounds, virtual

instruments, and power chords. When you're done, use Music Maker 14 to create a music video using your composition.



Magix Movie Edit Pro 14 \$49.99\*

www.magix.com

Transform your video recordings

into theater-quality films, complete with background music, text, and other special effects, in just three steps.

#### **Business Applications**



Microsoft Office Standard 2007

\$399.95\*

www.microsoft.com

Use all of today's most popular business office applications, including Excel, Outlook, Power-Point, and Word.



Adobe Acrobat 8 Standard

\$299\*

www.adobe.com

Easily create, combine, and manage various PDF documents for your personal or business needs.



Intuit Quicken Home & **Business 2009** \$99.99\*

www.intuit.com

Manage your money and your bills with ease while also saving money through Quicken Picks' online coupons and discounts.



Smith Micro Software VMware Fusion 2

\$79.99\*

www.vmware.com

This program lets you run Windows applications on your Intel-based Mac for greater freedom and productivity.

<sup>\*</sup>Prices listed in this issue are for general reference and may vary from retailer pricing.

#### Games/ **Entertainment**



2K Games Sid Meier's Civilization IV \$29.99\*

www.2kgames.com This addictive strategy game has a multiplayer mode for additional ways to compete against your friends.



Got Game **Entertainment** Arctic Stud Poker Run

\$19.99\*

www.gotgameentertain ment.com

This game combines the strategy of poker, the thrill of racing, and the explosions of combat in Tournament Elimination, single-player, or multiplayer modes.



Lucas Arts LEGO: Star Wars II: The **Original Trilogy** \$19.99\*

www.lucasarts.com Follow your LEGO characters through the storyline of the original "Star Wars" movie trilogy while battling the enemy and solving puzzles.



**Brighter Minds** Media World Of Goo \$19.99\*

www.brighterminds media.com

In this award-winning game, your challenge is to create structures out of Goo Balls. Gather up different types of Goo Balls that perform a variety of functions.

#### Home **Productivity**



Nuance Dragon **NaturallySpeaking** 10 Preferred \$199.99\*

www.nuance.com Dictate emails, reports, and other documents much faster than you can type and let Dragon NaturallySpeaking do the typing for you.



Intuit TurboTax Deluxe Federal + State \$59.95\*

www.intuit.com Simplify doing your taxes this year with TurboTax Deluxe. Customized questions guide you through the process with ease. The software maximizes your refund by searching for more than 350 deductions, and five Federal efiles are included.



Microsoft Streets & **Trips 2009** \$39.95\*

www.microsoft.com Plan your next vacation and share your travel plans with friends who will be joining you along the journey.



MasterCook Deluxe 9.0 \$19.99\* www.valusoft.com

Plan the meal for your next big family gathering or even just tomorrow's dinner using one of MasterCook's 8,000 nutritious recipes.

#### Security/ **Utilities**



Kaspersky Labs Internet Security 2009

\$79.95\*

www.kaspersky.com Premium protection that's updated hourly to keep your system safe from even the most recent threats.



Kaspersky Labs Anti-Virus 2009 \$59.99\*

www.kaspersky.com Kaspersky's newly updated Anti-Virus 2009 has added an advanced antivirus engine that increases scan times, giving you even better protection against viruses, Trojans, worms, spyware, adware, and more.



Webroot Software Spy Sweeper With **AntiVirus** \$49.99\*

www.webroot.com Protect up to three computers from viruses and spyware. Spy Sweeper stops both known and potential threats by blocking sus-



picious activity.

Trend Micro AntiVirus + AntiSpyware 2009 \$39.95\*

www.trendmicro.com Automatic scans, updates, and outbreak alerts make it easy to safeguard data and files. Protect against viruses, worms, spyware, and Trojan horses.

#### Backup/ Recovery



Symantec Norton Ghost 14.0 \$69.99\*

www.symantec.com Back up your entire computer or select specific files for backup to ensure you're able to recover from any unforeseen events, such as a crash or virus attack.



iolo System Mechanic **Professional** \$69.95\*

www.iolo.com With System Mechanic, you can find and fix errors and fragmentation on your PC, clean out clutter, and optimize your system for best performance.



**Acronis True** Image Home 2009 \$49.99\*

www.acronis.com With just one click, you can rest assured that your computer operating system, files, applications, settings, and all—is backed up, so you can quickly recover from a crash.



iolo DriveScrubber \$29.95\* www.iolo.com

When it's time to get rid of your old computer, use Drive-Scrubber to ensure all your personal data has been deleted. DriveScrubber will wipe your entire drive, including free space, and restore damaged drives.







## Accessories & Services

computer is a big investment, and now that you've taken the plunge, it's time to decide what you need to go along with your shiny new purchase. We've rounded up several of our favorite must-have accessories for every computer owner. Whether you have a laptop or desktop, be sure to add these items to your shopping list to complete your computing experience. FG

#### **KEYBOARD**

- An ergonomic design can cut down on wrist strain associated with carpal tunnel syndrome
- Bluetooth connectivity lends itself to a tidy desk with one less wire to contend with
- A specialty model, such as a gaming or media keyboard, can add functionality for your pastime of choice

#### SURGE PROTECTOR

- Ensure the electrical current running to your desktop or laptop computer doesn't exceed proper levels
- Portable models will protect your laptop when you're on the go for work or play

#### CLEANING KIT

- Specially designed cleaners will keep your LCD or plasma computer screen clean without running the risk of scratching its surface
- Cloths are often made out of low-conductivity material in order to reduce static

#### **USB HUB**

- Offers an affordable to way to connect all of your peripherals, even if you have more gadgets than USB ports
- Adds the convenience of easy USB access—no more reaching behind your computer to plug in your USB devices

#### **EXTERNAL HARD DRIVE**

- Protect precious video and photo memories with backups
- Keep your computer running more efficiently by saving large files, such as your media collection, on an external drive

#### **MOUSE**

- A wireless mouse will cut down on cable clutter at your desk while offering the convenience of portability for laptop use
- A gaming mouse can deliver better accuracy and speed for the ultimate in control
- Consider customizable buttons if you want to be able to access media, files, or programs with one-touch access

- A quality photo printer will eliminate trips to the drug store for 4x6 prints and give you the ability to instantly share your photo memories
- An all-in-one model is the perfect addition for any busy family who needs a device that can operate as a copier, scanner, fax, and printer

#### WEB CAM

Bridge the gap between long-distance family and friends with online video chatting by adding a Web cam to your setup

#### COMPUTING SERVICES

To keep your desktop or laptop computer in tip-top shape, take advantage of the computing services offered at your local CE retailer. They can help you keep your machine running smoothly and free from the dangers that lurk online.

- Computer Setup & Networking
- Virus & Spyware Removal
- Data Backup & Recovery
- Hardware & Software Upgrades
  - **Training & Consultation**



hether you want to seclude yourself and relax in noisy surroundings or immerse yourself in the nuances of your favorite music, a pair of noise-canceling headphones is the solution you've been seeking. Able Planet's NC600 Clear Harmony Noise Canceling Headphones (\$159.99; www.ableplanet.com) combine high-quality audio and comfort that will help you unwind and experience sound the way it was meant to be heard—without interfering distractions.

#### **Advanced Audio Technologies**

Audiophiles won't settle for anything less than pure and clear audio results, and with the NC600's features, that's exactly what they'll hear. The headphones incorporate Linx Audio, which enhances highfrequency audio, such as hard-to-hear words or notes, giving you results that are clear without boosting volume and harming your ability to hear. The Linx Audio feature also filters undesired background noise and distortion in order to deliver full, rich sound in any setting.

To further your listening experience, Able Planet's NC600 Clear Harmony

Noise Canceling Headphones also include SRS WOW 3D Surround Sound, which delivers encompassing three-dimensional audio with high fidelity. To separate yourself from the sounds of the outside world, an ANC (active noise cancelation) feature is accessible via an ear cup switch, and if you run out of battery power for ANC, this pair can double as stereo headphones.

#### Comfort At Home Or Away

Comfort and flexibility aren't overlooked on the NC600 headphones. Swivel leather-cushioned earcups and an adjustable headband will let you enjoy your audio for long periods of time. The NC600's design is also lightweight and includes an on-ear volume control for a quick, no-fuss way to change listening levels.

With a compact and sleek design, the NC600 makes a great travel companion for professionals and students alike. To help safeguard and neatly stow the headphones when not in use, the NC600 Clear Harmony Noise Canceling Headphones come with a hard protective carrying case. Two headphone adapters are also included—a dual-pin airline adapter that will let you watch or listen to in-flight programs and a 1/4-inch stereo adapter that will let you plug your set into many high-end audio devices.

Ideal for work or pleasure, the NC600 Clear Harmony Noise Canceling Headphones pack the latest award-winning audio technologies in a pair of headphones without a premium price. With its top-notch sound quality and comfort, you won't want to depart your audio bliss for hours. FG

### Active vs. Passive Canceling

eadphones can provide passive blocking of ambient noise, thanks to their foam construction. By creating a barrier that thwarts high-frequency sounds, such as the hum of an airplane engine or office chatter, however, headphones with ANC (active noise cancelation) can block sound more (up to 70%). Unlike passive noise canceling, headphones with ANC, such as Able Planet's NC600, emit sound waves that mimic incoming ambient noise in every way, except that the speakers' sound waves are 180 degrees out of phase to counteract incoming sound.



# What Can An MP3 Player Store?

## Find An MP3 Player **Compatible With Your Neds**

he biggest mistake you can make when buying an MP3 player is to get one that isn't compatible with the Web sites from which you want to download music files. It's also important to find out which other file formats—such as JPEG photo and H.264 video files-the player can support and where you can find them or how you can create them.

We'll help your shopping process by giving you an overview of the file types MP3 players support and explaining why players have such a range of storage capacities for different file types.

#### **Audio Files**

One common question shoppers have is whether an MP3 player can play the songs they have on CDs. Most portable music players can, as long as they work with a media application, such as Apple iTunes (www.apple.com) or Windows Media Player (www.mi crosoft.com), which converts a WAV file, a standard audio file commonly found on PCs and CDs. The media application compresses big WAVs into

much smaller files, such as an MP3 or WMA.

An MP3 file is about 3MB, which is about one-tenth the size of a WAV file. WMA (Windows Media Audio) files are even smaller-about half the size of an MP3.

AAC is the primary format used by Apple products, including the iPod and iPhone. It's also the format of files you can buy from iTunes.

Other common audio file formats that are used include:

- · ATRAC3 files are compatible with Sony MP3 players. (Sony MP3 players, however, are also able to play other file formats.)
- · AIFF is the standard audio format for Mac computers.
- · RA is the RealNetworks' audio format, and RAX is the Secure Real Audio format.
- · OGG is an open-source codec, which means there is no licensing fee for downloading these files.

#### **Photo Files**

Digital cameras, the likely source of the photos you'll transfer to an MP3 player, save images in JPEG format. You'll want to make sure that the player you buy supports JPEG files if it has the ability to display photos.

Other image file formats include BMP, GIF, TIFF, and PNG, which are commonly found in photo-editing and graphics applications.

#### **Video Files**

MP3 players that feature video playback work with one or more of the following video file formats:

- WMV is a compressed video format developed by Microsoft.
- · H.264/MPEG-4/AVC is a standard for highly compressed video used for storing HD files.
- · DivX, a video compression format created by DivX, supports HD videos. It's also supported by Windows Media Player.
- · M4V is a file type based on MPEG-4 available from the Apple iTunes Store in the form of music videos, TV shows, and feature movies.

#### Compatible Sources

Once you determine which file formats the player supports, you need to identify the sources that can provide content in those formats. We'll focus on music sites because music is the primary reason people use MP3 players.

The following file types are either available from the service or ones you can use with the service's application in creating playlists and burning CDs.

· iTunes. The music you buy at iTunes is in the AAC or M4V formats. You may use the iTunes jukebox to convert WAV files found on CDs.

Manufacturers base the number of files you can store on standards that depend on the file type. For example, some manufacturers estimate the number of songs you can store on their players based on 128Kbps in each WMA file. But MP3 files are larger than WMA files, so count on a lower number of songs if you load a player with MP3 files instead of (or in addition to) WMA files.

If the player has the capacity to store photos and/or videos, then the storage capacities will vary for each. Whereas the average size of a four-minute music file is more than 3MB, one JPEG file may be a fraction of that size—1MB or less. But JPEG sizes also depend on the resolution

## You'll want to make sure that the player you buy supports JPEG files if it has the ability to display photos.

- Rhapsody (www.rhapsody.com). This site supports MP3, WMA, AAC, RA, and RAX formats.
- · Napster (www.napster.com). Most tracks from Napster are in the WMA format.
- · Vorbis (www.vorbis.com). If your player can play OGG files, then visit Vorbis to get a list of other sites that let you download free OGG music files.

#### **Actual Capacity**

You will have access to most, but not all, of the storage capacity of an MP3 player because a portion of it is needed for formatting and other data management functions.

Check out First Glimpse's MP3 Player Comparison Chart on page 81 to see how much you can store on a variety of available players.

and compression of the camera that captured the image. So, one high-res JPEG could be as large as a typical music file.

Video file sizes range widely, again because of varying standards. Some manufacturers determine the video capacity of MP3 players in terms of total hours of videos they store as opposed to the number of video files.

#### **Informed Expectations**

The key to contentment with your MP3 player begins with realistic, informed expectations of what and how much it can store. Find out which file formats the device works with and then make sure those formats are compatible with the Web sites and devices you use the most. FG

BY RACHEL DEROWITSCH

# MP3 Player Audio Sýstems

## Dock & Play Anywhere You Like

f you think the selection of MP3 players has multiplied rapidly, you'll want to know about the profusion of audio systems that will enhance your MP3 player listening experience. By adding an MP3 player dock unit, you're no longer confined to the in-ear sounds coming from your earbuds or headphones.

#### Far Beyond The Boom Box

While MP3 player audio systems come in all shapes, sizes, and colors (mostly silver and black), the majority of them are portable enough to move to any room in your home or provide entertainment for your backyard grill-out. You'll find some as small as 6 inches. but others are large enough to be a slick centerpiece in your entertainment room. If you pay attention to design over function, look for oneof-a-kind styles and distinct characteristics, such as a cube shape, circular platform, or separated left and right speakers.

Numerous systems support old generations of MP3 players, but you'll also see dock units best-suited for some of the latest players with mobile phone capabilities and personalized applications. These types of dock stations automatically pause songs when you receive an incoming call on the phone. Clock radios can also be incorporated into many alarm-based models. After listening to your MP3 player throughout the day, you can dock it in an alarm station and wake up to the same song you heard the previous night.

#### Features For Rockin' Out

One of the most convenient ways to use your MP3 player dock is via remote control. An included remote will allow you to control multiple functions—menu, pause, radio—from across the room. Some docking stations feature built-in LED backlighting so when you want to know the name of the song that is playing as you wake up from your nap, you can glance over to check its information. Also, take note of other unique features, including additional

subwoofers, motion-activated snooze, and cylinder-shaped construction for your bicycle's bottle holder. These features help you match your MP3 player audio system to your daily activities.

#### **Find Your Match**

Before you make a buying decision, be sure to check the brand compatibility of your preferred MP3 audio system. You'll want to be able to immediately dock your MP3 player and start enjoying all the music you love. FG

BY JOANNA SAFFORD

## Ways To Go Waterproof

hether you're sipping lemonade beside the pool, building a sandcastle with your children at the beach, or taking a refreshing shower after an intense workout, music can make each activity more enjoyable. You can easily toss a set of water-resistant portable speakers into your tote bag on the way out the door.

A larger waterproof MP3 speaker system that includes enough wattage to support high levels and bass tones can pump out your favorite tunes without muffling the nuances of a particular song and can be used indoors or outdoors. A protective case and waterproof seal will shield your MP3 player from water splashes and condensation.





rinting out maps and turn-by-turn directions from the Internet is so yesterday. Stopping to ask someone for directions? Even more outdated.

With GPS devices, you don't have to do either. Instead, you can tap in to maps, download Web-

based updates, and receive optional real-time traffic services to get where you need to go.

GPS devices differ as widely as the vehicles and drivers they guide. Generally, they fall into three categories—handheld, portable, and in-dash-and they offer different features and form factors. We'll explain each type and point you to the one that best suits your lifestyle and travel needs.

BY RACHEL DEROWITSCH

#### Handheld

- · Compact and lightweight
- Loaded with detailed maps
- Rugged hardware
- Easy to use and take with you

Handhelds are generally smaller, lighter, and less expensive than the other two types of GPS devices. Some are designed to help you track your exercise regimen and monitor your heart rate. A few even strap around your wrist, making physical activities, such as biking or jogging, easier. Others double as PDAs.

Integrated Wi-Fi and Bluetooth capabilities enable you to easily download the most current maps and traffic information. On some models, if you input your destination, the device will figure out the most efficient way to go, guiding you with colored graphics and text and voice prompts.

Perfect For: Hikers, bikers, and drivers. Handheld devices are ideal for outdoor enthusiasts who also like to hit the road occasionally.

#### Portable

- · Car-mountable
- Easily moves from car to car
- Runs on vehicle and sometimes battery power
- · Loaded with detailed maps

No matter where you need it, a portable GPS device will help get you to your destination. It's designed to run on a vehicle's power source, but if you want to take a spontaneous hiking trip, you can carry the battery-powered units with you, as well.

With larger touchscreens than handheld models, portable GPS devices can map out your directions in full color. Programmed points of interest, a trip calculator, antitheft system, and a rechargeable lithium-ion battery are other features to look for.

Perfect For: Trip-takers. Portable GPS devices are ideal for multicar families who want to switch the device among vehicles and possibly take it along on an outdoor excursion.

#### In-Dash

- Large screen
- Multimedia functions
- Robust navigation features
- · Pulls in strongest satellite signals

The maps and trip-calculating features of an in-dash GPS device are by far the most advanced of the three types. One thing to consider: You will probably need professional installation for an in-dash system.

These larger GPS devices come with more bells and whistles than smaller models. Some features to consider include Bluetooth compatibility, satellite radio, and integration with an MP3 player. With some in-dash models, you can also receive live weather and traffic updates.

Perfect For: Road warriors. Those who travel extensively and frequently visit new and unfamiliar places will definitely appreciate this device's large screen, powerful navigating capabilities, and entertainment options.



## CE Retailers' Mobile Services

## **One-Stop Convenience**

f you've wandered the aisles of your favorite CE retailer, you've likely seen a wireless kiosk or two. What you may not realize is these "stores within a store" can provide many benefits beyond visiting a traditional cell phone carrier's store. Here's a closer look at the mobile services you'll find at CE retailers.

done. Because CE retailers frequently offer accessories for all types of phones, you can get everything you need for your new phone—including a memory card, Bluetooth headset, and casewithout having to visit another store.

#### Handheld Comparison

Each carrier offers its own set of handsets to be used on its network. If you're trying to choose between two phones, you'll be able to compare them side-byside, pick them up, and interact with them in a mobile store. In addition, you will be able to compare handsets from various carriers. When upgrading phones, many wireless stores can also help transfer your address book from your old phone. FG

BY JENNIFER JOHNSON

#### **Many Plan Options**

In many cases, mobile stores within a CE retailer's store offer services from multiple carriers. This makes it easy for you to directly compare one carrier's plans to another's. On the flip side, if you were at one carrier's wireless store, it'd be highly unlikely that you could get straightforward facts about how its services and plans compare to another carrier. With in-store mobile services from a variety of carriers, you'll get all the facts in one location.

#### One-Stop Shop

For many of us, it seems that there is never enough time to get everything

## **Mobile Service Offerings**

est Buy has rolled out Best Buy Mobile. This joint venture with Carphone Warehouse aims to provide a better mobile phone shopping experience. In addition to many of the benefits listed above, Best Buy Mobile can provide customers with impartial, in-depth information for about eight to 10 carriers and help customers find a carrier that'll best suit their needs. These mobile phone specialists are noncommissioned, so you know you'll get honest input. In addition, Best Buy Mobile's phone experts can help explain the various technologies and services that are available today and show you how those services can fit into your lifestyle.

All of us want to get a good deal without a lot of hassle. Prices for phones through Best Buy Mobile are clearly marked, and you won't have to deal with rebates. Should something go wrong with your phone, Best Buy can provide repair services and loaner phones to help you get back up and running. Finally, because Best Buy offers a number of other products outside the mobile realm, associates can demonstrate how your phone or wireless service can interact with other devices such as your laptop. 🔾

# Revive Your Radio's Sound

## What You Need To Know About HD Radio



hether you need some musical motivation to get the house clean or an interesting discussion for the drive

to work, there are many times when you want to tune in to your favorite radio station. But how many times has a song cut out during the guitar solo or that engaging AM talk show been overridden with static? An HD radio can enhance your listening experience by eliminating many of these problems.



You might think that because the HD in HDTV stands for high definition it's the same for HD radio. But more accurately, HD radio is the brand of a technology that allows radio stations to simultaneously broadcast both digital and analog signals to offer CD-quality audio and textual information to the listener.

Traditionally, radio stations broadcast in analog. HD radio, however, combines analog and digital signals to bring you better sound quality. But why does adding a digital signal create better sound quality? Analog signals are susceptible to interference and deterioration as they encounter obstacles such as buildings. The digital signal, however, can pass through those obstacles and bring you clear, CD-quality audio. Because HD radio has both analog and digital signals, your old radio can still receive the analog broadcast, but if you have an HD radio, you can take advantage of superior audio



quality, listen to digital stations that are only picked up by HD radio units, and view added textual information that is broadcast with every radio program, including song titles and artists, sports, weather, and news.

#### The Benefits

With HD radio, FM and AM stations will have improved sound, creating a more enjoyable listening experience while you're in your car running errands or working around the house.

HD radio also features multicasts. With multicasting, radio stations can broadcast multiple programs simultaneously, offering them the freedom to cater to more specific audiences and giving you more listening choices. For example, a radio station may divide the digital portion of its signal to simultaneously play music and cover a sports event.

An important item to note is that many radio stations are already broadcasting HD signals in addition to their traditional analog signals, but not every station offers HD. To find out if stations broadcast HD in your area, you can visit www.hdradio.com and click the Station Guide link at the top of the page.

#### Getting HD Radio

In order to receive a digital radio signal, you only need to buy a tabletop or indash car HD radio unit. Unlike satellite radio, HD radio doesn't require a monthly subscription fee. Basic tabletop HD radios can range anywhere from \$75 to \$300, whereas in-dash car units will cost \$100 to \$300. Another option for your car is an HD radio tuner that connects to your existing car stereo, enabling it to pick up HD radio stations. FG

BY KRIS GLASER

# THINGS TO KNOW

**GPS Navigation** 

#### Car GPSes

## What is a car GPS?

Like other GPS units, in-car GPSes give you directions to a specific location and can help you find the best route from Point A to Point B, wherever you may be.

## Why do I need a GPS in my car?

A GPS unit is your personal navigator, giving you the confidence to explore new locations or plan the shortest route between the stops on your errands list. Many units also include POIs (points of interest), which can alert you to interesting attractions along your way.

## Are all car GPSes installed in the dashboard?

No. Some GPS units have a mounting bracket and can be removed from your car and used as a portable GPS navigator. Others plug into your car's cigarette lighter to charge their battery and can also become portable units.

#### **Marine GPSes**

## What is a marine GPS?

These are designed to be used onboard a boat and come preloaded with special marine maps.

## How are marine GPSes different than other GPS units?

Most marine GPSes are used to locate fish, rather than to plot a course. "Fish-finder" GPSes use sensors and sonar returns to determine the size and distance of nearby fish.

## How much should I budget for a marine GPS?

They can range from \$100 to \$700, with more expensive units containing more features and larger screens.

## What features should my marine GPS have?

Look for a water-resistant unit; a large, easy-to-read screen; and alarms that alert you when fish come near.









#### Handheld GPSes

#### How is a handheld GPS used differently than other **GPS** devices?

Handheld GPS devices include maps and features that are specially designed for outdoor activities, as opposed to larger in-car units that only give street directions.

## What types of maps are on handheld GPS devices?

Handheld GPS devices have maps that include hiking and biking trails, natural landmarks, and other points of interest associated with outdoor activities. Some handheld devices also enable you to download street maps so you can use your device while driving.

## Should I worry about damaging my GPS while outdoors?

Handheld GPS devices are built to withstand harsh weather elements and are made with stronger materials to withstand conditions such as intense heat and cold and an accidental drop.

#### What other features make a handheld GPS different than in-car units?

Handheld devices often include additional features geared specifically for outdoor use, including sun and moon information, a barometric altimeter, and tide tables.

## How are handheld GPS units the same as in-car units?

Both in-car GPS units and handheld GPS units pinpoint your location and provide you with directions. Many models let you expand their memory with a memory card.

#### **Fitness GPSes**

## What is a fitness GPS?

A fitness GPS unit works with satellites to pinpoint your location, routes, and directions. These devices combine traditional GPS features with features unique to sports-related activities.

## What features are specific to fitness GPS devices?

Fitness GPSes often include features that measure your heart rate, calculate how many calories you've burned, and keep track of how far you've run, biked, hiked, etc.

## What types of maps are used with fitness GPS units?

Fitness GPS devices follow hiking, biking, and running trails similarly to how other GPS units follow streets. Hunting and golfing GPS units have maps that encompass golf courses and hunting grounds.

## Where do I put my fitness GPS while I'm working out?

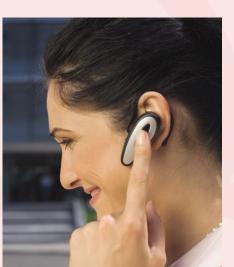
Most fitness GPS devices are either designed as a wristwatch or with a clip that lets it fit onto equipment, such as a bike. Others have a small form factor so they are convenient to carry while you are doing activities, such as golfing.

### How does a golfing GPS device differ from others?

A golfing GPS device provides you with information about particular golf courses, such as driving range measurements and the distance to the green.















## Accessories & Services

o matter where you go, a wireless device can add enjoyment to your journey. Cell phones help you keep in touch with loved ones when you're traveling for business, while a GPS device can help you find your way if you're lost or want to find the local hot spots during a vacation. And,

of course, your MP3 player can provide a soundtrack wherever you're headed. To make sure you are taking full advantage of the capabilities your wireless devices offer, check your local CE retailer for accessories that can enhance your experiences. We've listed our favorites below.

#### MP3 PLAYER CASES

- Protect your MP3 player from bumps and scratches
- Quickly access your player's functions with a clip
- Keep your player out of your way with an armband

#### **MP3 PLAYER DOCKS & SPEAKERS**

- Invest in portable speakers to play the music on your MP3 player for a group; some include radios and can also play CDs
- Recharge your player's battery with a portable dock as you continue to listen to music
- Play your music through car speakers using an FM transmitter

#### MP3 PLAYER EARPHONES

- Match earphones to your needs: If you don't want anything bulky, opt for earbuds that fit inside your ear; to hear every musical detail, try headphones that cover the ear completely
- Hear your music without the interference of background noise with earphones that offer a noise-canceling feature

#### CELL PHONE CHARGERS

- Keep your phone charged no matter where you are; adapters for your cell phone let you use solar power, your car's DC outlet, wall power, or your computer to charge your phone
- Be prepared for emergencies with extra cell phone batteries

#### CELL PHONE HEADSETS

- Keep your hands free while still being able to use your phone
- Link compatible cell phones to a Bluetooth headset to make or take calls without a tangled mess of cable
- Don't miss any of your conversation with a headset that offers noise-canceling capabilities

#### CELL PHONE CASES

- Safeguard your phone from wear and tear with a case
- Universal cases fit most sizes of cell phones; some of these will include clips and wrist straps for portability and accessability
- Fitted cases specifically fit your phone's model type; these can be hard arcylic casings, rubber sleeves, or leather pouches
- Avoid scratches and fingerprints with stick-on or hard, clear screen protectors on your phone's screen

#### GPS MOUNTS

- Put your GPS within hand's reach with a mount
- Mounts can be placed on a car dash or stick to a windshield
- Unique GPS mounts are available for golf carts or bicycles

#### **GPS CHARGERS**

- Make sure your travel companion always has a full battery
- Charge your GPS no matter where you are with an adapter; adapters can plug into a wall, PC, or car's DC outlet

#### WIRELESS SERVICES

Whether your wireless device is brand new or nearing the end of its life span, your local CE retailer offers services to help you take care of all of your wireless device needs.

- Protection plans for GPSes, MP3 players, and cell phones
- Phone and battery recycling
- GPS setup and deck installation
- MP3 vehicle integration
- MP3 player setup and training
- Cell phone repair services and loaner phones



## Headphones

## Protect Your Hearing & Enhance Your Audio



## Able Planet Clear Harmony Headphones

MSRP: \$159.99 SKU: 9207627 www.ableplanet.com

#### **Quick Overview**

Powered with award-winning Linx Audio and noise-canceling technologies, the light-weight over-the-ear NC600 Clear Harmony Noise Canceling Headphones output superior audio reproduction containing superior volume, improved speech clarity, and reduced distortion while simultaneously filtering out undesirable sounds and restricting electromagnetic interference.

#### **Perfect For**

Mobile business execs, students, and office workers who are seeking to reduce noisy distraction with a comfortable pair of headphones that supplies high-fidelity audio.

#### **Outstanding Benefits**

- · Linx Audio and active noise-canceling technologies
- Functions as stereo headphones when noise-canceling is powered off
- 20Hz-to-20KHz frequency response
- 110db and 116db sensitivity at 1KHz
- SRS WOW 3D Surround Sound
- Hard carrying case, 5-foot cord, airline adapter, quarter-inch stereo adapter, and two AAA alkaline batteries required to power noise-canceling function included

#### **Coolest Feature**

The NC600 Clear Harmony's integrated Linx Audio and noise-canceling technologies increase the perceived volume level without actually increasing the volume to enable safer listening.



## xantrex

## Portable Power Device

## Power On The Go



#### Duracell® Digital Inverter 400

MSRP: \$86.99 SKU: 9040726

www.duracellpower.com

#### **Quick Overview**

The Duracell® Digital Inverter 400 converts 12volt DC battery power from a vehicle into useable AC household power to operate mobile electronics. Designed to power electronics onthe-go, this compact inverter combines innovative industrial design with an advanced interactive LED display that provides the user with instant feedback on input and output voltages, and valuable troubleshooting guidance.

#### **Perfect For**

This product is ideal for the person who is looking to power mobile electronics such as laptops, cell phones, TVs, and more.

#### **Outstanding Benefits**

- · Compact and easy-to-use power on the go
- Provides portable AC household power in your vehicle
- Power a variety of devices, such as laptop computers, cell phones, TVs, mobile gadgets, and more
- Digital display provides information about input and output voltage levels
- Automatic shutdown protects devices from power overloads
- Low-battery alert advises you to shut down devices before a loss of power

#### **Coolest Feature**

This inverter provides a convenient and powerful means of accessing AC household power on-the-go.



## Which MP3 Player Is Best For You?

Pods are cool, sure, but you have other choices when it comes to listening to your tunes. This chart compares the most important—and coolest—features from select MP3 players.

		Memory type	Capacities	Songs	Video; FM tuner capabilities	Colors	Battery life
	What It Means	Hard drive (moving parts, more capacity) or flash (no moving parts)	How much memory the player has (on models available at Best Buy)	Based on four- minute songs at 128Kbps, the number a play- er can hold	Some MP3 play- ers can play video or let you listen to radio stations	Several players offer a variety of color choices	How long the bat- tery will last when playing music
	Philips GoGear SA3245/37 MSRP: \$69.99* SKU 9011767	Flash	4GB	900 (MP3)	Both	Black	20 hours
A Made 1	SanDisk Sansa Clip MSRP: \$79.99* SKU 8753976	Flash	4GB	2,000 (WMA)	Only an FM tuner	Silver	15 hours
Unation 1	SanDisk Sansa Fuze MSRP: \$79.99*; \$99.99*; \$129.99* SKU 8753789	Flash	2GB; 4GB; 8GB	500; 1,000; 2,000	Both	Black, red, pink, blue	24 hours
	<b>Apple iPod nano</b> MSRP: \$149*; \$199* SKU 8772964	Flash	8GB; 16GB	2,000; 4,000 (AAC)	Only video	Silver, black, purple, blue, green, yellow, orange, pink	24 hours
zune	Microsoft Zune 8GB MSRP: \$149.99* SKU 9008502	Flash	8GB	2,000	Both	Blue, green	24 hours
<u>.</u>	Samsung P2 MSRP: \$199.99*; \$249.99* SKU 8627961	Flash	4GB; 8GB	N/A	Both	Black, burgundy	30 hours
Comme Comme	Apple iPod touch MSRP: \$229*; \$299*; \$399* SKU 8772063	Flash	8GB; 16GB; 32GB	1,750; 3,500; 7,000 (AAC)	Only video	Black	36 hours
The state of the s	Apple iPod classic MSRP: \$249* SKU 8772036	Hard drive	120GB	30,000 (AAC)	Only video	Black, silver	36 hours

<sup>\*</sup>Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which GPS Device Is Right For You?

ne of the hottest CE devices around right now is a GPS device, and what a useful device it is, too. Here, we compare some models available on today's market. All of these units come with maps already loaded, and you can purchase additional maps, as well.

		Screen size; Dimensions	Text-to- speech; Traffic receiver	Preloaded maps	WAAS	Bluetooth; MP3 play- back	Included charging adapters
	What It Means	The diagonal measurement of the screen; Height x width x depth	Unit calls out spe- cific street names; Unit receives traf- fic updates and re- routes accordingly	The regional maps that come included with the GPS unit	A satellite and ground station system that gives exceptional GPS accuracy	Some units com- municate wire- lessly with other Bluetooth devices or play MP3s	AC adapters plug into the wall; DC adapters plug into your car's ciga- rette lighter
P 400 manual man	TomTom ONE 130 MSRP: \$149.99* SKU 8774463	3.5 inches; 3.8x3.2x1 inches	No; No	Entire U.S. (including Puerto Rico) and Canada	No	No; No	DC adapter
Visited March 1997	Magellan RoadMate 1400 MSRP: \$199.99* SKU 8870019	4.3 inches; 3.27x4.57x 0.73 inches	No; No	Continental U.S., Hawaii, and Puerto Rico	Yes	No; No	DC adapter
100	<b>Garmin nüvi 260w</b> MSRP: \$349.99* SKU 8877192	4.3 inches; 2.9x4.8x0.8 inches	Yes; No	Entire U.S. (including Puerto Rico) and Canada	No	No; No	DC adapter
	Insignia NS-CNV10 MSRP: \$399* SKU 8947287	3.5 inches; 3.21x4x0.9 inches	Yes; Yes	Entire U.S. (including Puerto Rico)	Yes	No; Yes	DC adapter; AC adapter
P 350 19 30 19 19 19 19 19 19 19 19 19 19 19 19 19	<b>TomTom GO 730</b> MSRP: \$449.95* SKU 8774533	4.3 inches; 3.3x4.7x1 inches	Yes; Yes	Entire U.S. (including Puerto Rico) and Canada	No	Yes; Yes	DC adapter
	Insignia NS-CNV20 MSRP: \$499* SKU 8947312	4.3 inches; 3.21x4.68x 0.9 inches	Yes; Yes	Entire U.S. (including Puerto Rico)	Yes	Yes; No	DC adapter; AC adapter
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Magellan Maestro 4370 MSRP: \$399.99* SKU 9039257	5 inches; 4.65x3.26x 0.7 inches	Yes; Yes	Entire U.S. (including Puerto Rico) and Canada	Yes	Yes; Yes	DC adapter; AC adapter
100	<b>Garmin nüvi 765T</b> MSRP: \$599.99* SKU 8956089	4.3 inches; 3x4.8x0.8 inches	Yes; Yes	Entire U.S. (including Puerto Rico) and Canada	No	Yes; Yes	DC adapter

<sup>\*</sup>Prices listed in this issue are for general reference and may vary from retailer pricing.

# April Showers Bring May Flowers

In order to watch the beautiful May flowers bloom, we must endure April showers. When facing the springtime drizzle, don't let the weather detract from your enjoyment and CE device's performance. Here are some products that will help you and your electronics hold up against rainy days.

#### Lowepro All-Weather Shoulder Bag

Help multiple devices survive the elements. \$25.99



#### SunBriteTV Water-Resistant Remote For Select SunBriteTV Televisions

Despite what your mother may have told you, a channel flipper can survive in the water. \$134.99





#### LaCross Technology Weather Direct Lite Wireless Weather Station

Don't be caught by surprise without your umbrella and galoshes. \$39.99



# Dooney & Burke Rainbow Hearts Cell Phone Case

Perfect if you want to add a little rainbow to the rain. \$49.99

#### h2o Audio Amphibx Waterproof Arm Band

Wear multiple devices on your wet sleeve. \$79.99



## Vanguard 7x50 Waterproof Binoculars

You never know when they'll call off a game's rain delay.



# Get All The Details

on new CE products with First Glimpse's product profile sections

